

February 19, 2010

**NOTE TO: Medicare Advantage Organizations, Prescription Drug Plan Sponsors, and Other Interested Parties**

**SUBJECT: Advance Notice of Methodological Changes for Calendar Year (CY) 2011 for Medicare Advantage (MA) Capitation Rates, Part C and Part D Payment Policies and 2011 Call Letter**

In accordance with Section 1853(b)(2) of the Social Security Act (the Act), we are notifying you of planned changes in the MA capitation rate methodology and risk adjustment methodology applied under Part C of the Act for CY 2011. Preliminary estimates of the national per capita MA growth percentage and other MA payment methodology changes for CY 2011 are also discussed. For 2011, CMS will announce the MA capitation rates on the first Monday in April 2010, in accordance with the timetable established in the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA).

Attachment I shows the preliminary estimates of the national per capita MA growth percentage, which is a key factor in determining the MA capitation rates. Attachment II sets forth the changes in payment methodology for CY 2011 for original Medicare benefits. Attachment III set forth the changes in payment methodology for CY 2011 for Part D benefits. Attachment IV presents the annual adjustments for CY 2011 to the Medicare Part D benefit parameters for the defined standard benefit. Attachment V presents the preliminary CMS-HCC and RxHCC risk adjustment factors. Attachment VI provides the draft CY 2011 Call Letter for Medicare Advantage (MA) organizations (MAOs); section 1876 cost-based contractors; prescription drug plan (PDP) sponsors; demonstrations; Programs of All-Inclusive Care for the Elderly (PACE) organizations; and employer and union-sponsored group plans, including employer/union-only group waiver plans (EGWPs). The Call Letter contains information these plan sponsor organizations will find useful as they prepare their bids for the new contract year.

The Advance Notice/Call Letter has been drafted assuming current law. If new legislation is enacted after this Notice is released and before the April Rate Announcement is published, CMS will incorporate changes in the Rate Announcement.

Comments or questions may be submitted electronically to the following address: [AdvanceNotice2011@cms.hhs.gov](mailto:AdvanceNotice2011@cms.hhs.gov). Comments or questions also may be mailed to:

Deondra Moseley  
Centers for Medicare & Medicaid Services  
7500 Security Boulevard  
S2-22-25  
Baltimore, Maryland 21244

In order to receive consideration prior to the April 5, 2010 release of the Announcement of Calendar Year (CY) 2011 Medicare Advantage Capitation Rates and Medicare Advantage and Part D Payment Policies, comments must be received by 6:00 PM Eastern time on Friday, March 5, 2010.

/ s /

Jonathan Blum  
Acting Director  
Center for Drug and Health Plan Choice

/ s /

Paul Spitalnic, A.S.A., M.A.A.A.  
Director  
Parts C & D Actuarial Group  
Office of the Actuary

Attachments

**2011 ADVANCE NOTICE  
TABLE OF CONTENTS**

ATTACHMENT I. PRELIMINARY ESTIMATE OF THE NATIONAL PER CAPITA GROWTH PERCENTAGE FOR CALENDAR YEAR 2011 .....	5
ATTACHMENT II. CHANGES IN THE PAYMENT METHODOLOGY FOR ORIGINAL MEDICARE BENEFITS FOR CY 2011 .....	7
Section A. Recalibration and Clinical Update of the CMS-HCC Risk Adjustment Model .....	7
Section B. New Enrollee Risk Scores for Chronic SNPs .....	10
Section C. Normalization Factors .....	11
C1. Normalization Factor for the CMS-HCC Model.....	11
C2. Normalization Factor for the ESRD Dialysis Model .....	11
C3. Normalization Factor for Functioning Graft Enrollees' Risk Scores.....	12
C4. Normalization Factor for the Rx Hierarchical Condition Category (RxHCC) Model .....	12
Section D. Aged/Disabled MSP Factor .....	12
Section E. Frailty Adjustment.....	13
E1. Frailty Adjustment Factors .....	13
E2. Frailty Adjustment Transition for PACE organizations .....	13
E3. Frailty Adjustment Transition for Certain Demonstrations.....	14
Section F. Adjustment for MA Coding Pattern Differences.....	14
Section G. Budget Neutrality.....	15
Section H. ESRD Payment .....	15
H1. Transition to New ESRD Payment .....	15
H2. ESRD State Rates.....	16
H3. Recalibration and Clinical Update of ESRD Risk Adjustment Models.....	16
H4. ESRD MSP Factor .....	17
Section I. IME Phase Out.....	17
Section J. EHR Incentives.....	17
Section K. Physician Quality Reporting Initiative (PQRI) and E-Prescribing .....	17
Section L. Clinical Trial Policy .....	18
Section M. Adjustment to FFS Per Capita Costs for VA-DOD Costs .....	19
Section N. Location of Network Areas for PFFS Plans in Plan Year 2012.....	20
ATTACHMENT III. CHANGES IN THE PAYMENT METHODOLOGY FOR MEDICARE PART D FOR CY 2011 .....	21
Section A. Recalibration and Clinical Update of the RxHCC Risk Adjustment Model.....	21
Section B. LIS Benchmarks.....	24
Section C. Reinsurance Payment Demonstration .....	24
Section D. Payment Reconciliation .....	25

Section E. Medicare Part D Benefit Parameters: Annual Adjustments for Defined Standard Benefit in 2011 .....	27
ATTACHMENT IV. MEDICARE PART D BENEFIT PARAMETERS FOR THE DEFINED STANDARD BENEFIT: ANNUAL ADJUSTMENTS FOR 2011 .....	30
ATTACHMENT V. PRELIMINARY CMS-HCC, ESRD, AND RX-HCC RISK ADJUSTMENT FACTORS .....	34
ATTACHMENT VI: 2011 CALL LETTER .....	78
SECTION 1 - NEW POLICY .....	81
Part C .....	81
I. Special Needs Plans (SNP).....	81
II. Quality and Performance Measures .....	81
Part D .....	82
I. Part D Benefits.....	82
II. Reassignment .....	84
SECTION 2 - UPDATES TO PARTS C AND D POLICY/CALENDAR .....	85
I. Recommended Deadlines for Cost-Based Plan Non-Renewals .....	96
II. Coordination of Benefits (COB) User Fees .....	96
III. Specialty Tier Threshold.....	96
IV. Medicare Enrollment Assistance Demonstration .....	96
V. Risk Adjustment Data Validation (RADV) .....	97
VI. Release of Part C and Part D Payment Data.....	97

## Attachment I. Preliminary Estimate of the National Per Capita Growth Percentage for Calendar Year 2011

Section 1853 (k)(1)(B) of the Social Security Act (the Act) provides that, for years when CMS is “rebasings” the amount representing the actuarial value of costs under original fee-for-service (FFS) Medicare, the MA capitation rate for a payment area will be based on the greater of the adjusted average per capita cost or the prior year’s capitation rate for the area updated by the national per capita MA growth percentage (with no adjustment to this percentage for over- or under-estimates for years before 2004). CMS is rebasing the FFS rates for CY 2011.

The current estimate of the change in the national per capita MA growth percentage for aged and disabled enrollees combined in CY 2011 is 1.38 percent. This estimate reflects an underlying trend change for CY 2011 in per capita costs of 1.75 percent and, as required under section 1853(c)(6)(C) of the Act, adjustments to the estimates for prior years as indicated in the table below. Our new estimates are lower than the estimates actually used in calculating the CY 2010 capitation rate book for CYs 2004, 2005, 2006, and 2008 and higher for CYs 2007, 2009, and 2010 than were published April 6, 2009. Section 1853(c)(1)(D)(i) of the Act, as added by sections 4101(e) and 4102(d) of the Health Information Technology for Economic and Clinical Health Act (HITECH Act), requires that electronic health record (EHR) incentive payments be excluded from the calculation of the adjusted average per capita cost.

The following tables summarize the estimates for the change in the national per capita MA growth percentage for aged/disabled rates (Table I-1) and ESRD rates (Table I-2).

**Table I-1. National Per Capita MA Growth Percentage – Aged/disabled**

	Aged	Disabled	Aged+Disabled
2011 Trend Change	1.69%	2.07%	1.75%
Revision to CY 2010 Estimate	0.19%	0.45%	0.20%
Revision to CY 2009 Estimate	0.23%	2.37%	0.56%
Revision to CY 2008 Estimate	-0.42%	0.44%	-0.30%
Revision to CY 2007 Estimate	0.10%	-0.26%	0.04%
Revision to CY 2006 Estimate	-0.39%	-0.42%	-0.41%
Revision to CY 2005 Estimate	0.06%	-1.36%	-0.13%
Revision to CY 2004 Estimate	-0.31%	-0.32%	-0.31%
Total Change	1.13%	2.95%	1.38%

Notes: The total percentage change is multiplicative, not additive, and may not exactly match due to rounding.

For 2011, CMS will retabulate the ESRD State rates with fee-for-service costs based on 2008 data and a recalibrated ESRD risk model. The table below shows the dialysis-only national

growth percentage for each year between 2008 and 2011. The final rate for 2011 will be the greater of the estimated 2011 fee-for-service amount or the CY 2010 dialysis-only rate standardized with the recalibrated coefficients and increased by 2 percent.

**Table I-2. National Per Capita MA Growth Percentage -- ESRD**

	ESRD
2011 Trend Change	3.78%
2010 Trend Change	1.24%
2009 Trend Change	3.65%
Total Trend	8.90%

Notes: The total percentage change is multiplicative, not additive, and may not exactly match due to rounding.

These estimates are preliminary and could change before the final rates are announced on April 5, 2010 in the Announcement of Calendar Year (CY) 2011 Medicare Advantage Capitation Rates and Medicare Advantage and Part D Payment Policies. Further details on the derivation of the national per capita MA growth percentage will also be presented in the April 5, 2010 Announcement.

## **Attachment II. Changes in the Payment Methodology for Original Medicare Benefits for CY 2011**

### **Section A. Recalibration and Clinical Update of the CMS-HCC Risk Adjustment Model**

The CMS-HCC risk adjustment model is used to adjust payments for Part C benefits offered by MA plans and PACE organizations to aged/disabled beneficiaries. The CMS-HCC model includes both diseases and demographic factors. There are separate sets of coefficients for beneficiaries in the community, beneficiaries in long term care institutions, and new enrollees. The CMS-HCC model was first used for payment in 2004 and has been recalibrated two times since then (2007 and 2009).

In 2011, CMS will implement an updated version of the CMS-HCC risk adjustment model, including the coefficients for the community, institutional, and new enrollee segments of the model. The 2011 model will encompass both updates to the data years used to recalibrate the model and a clinical revision of the diagnoses included in each hierarchical condition category (HCC).

CMS recalibrated the CMS-HCC risk adjustment model using data from FFS claims, specifically, 2006 diagnoses were used to predict 2007 expenditures. In addition to using more recent data years in recalibrating the model, CMS also undertook a clinical update that involved reviewing the assignment of all ICD-9 diagnoses codes to diagnosis groupings that are used as the building blocks of the condition categories (CC). In consultation with a panel of outside clinicians, CMS reviewed the ICD-9 codes grouped with other clinically similar ICD-9 codes. These diagnosis groupings were then mapped to condition categories based on similar clinical characteristics and severity, and cost implications. Both the panel of clinicians and analyses of cost data informed the creation of condition categories.

Coefficients for condition categories were estimated by regressing the total expenditure for A/B benefits for each beneficiary onto their demographic factors and condition categories, as indicated by their diagnoses. Resulting dollar coefficients represent the marginal (additional) cost of the condition or demographic factor (e.g., age/sex group, Medicaid status, disability status).

Changes to the condition categories – additions, deletion, and revisions – are based on each category's ability to predict costs for Medicare Parts A and B benefits. Condition categories that don't predict costs well –because the coefficient is small, the t-value is low, the number of beneficiaries with a certain condition is small so the coefficient is unstable, or the condition doesn't have well specified diagnostic coding – are not included in the model. HCCs in the current model are subject to revision, regrouping, or deletion.

In a final step, hierarchies were imposed on the condition categories, assuring that more advanced and costly forms of a condition are reflected in a higher coefficient.

There were no changes in the demographic factors used in the CMS-HCC model, although we used the more recent and comprehensive sources of Medicaid – MMA State files, Territory-reported, and plan-reported -- in calibrating the model.

In order to use the risk adjustment model to calculate risk scores for payment, we create relative factors for each demographic factor and HCC in the model. We do this by dividing all the dollar coefficients by the average per capita predicted expenditure for a specific year (i.e., the “denominator year”). For 2011, CMS used the predicted per capita costs for 2009. The relative factors are used to calculate risk scores for individual beneficiaries, which will average 1.0 in the denominator year for the FFS population. The denominator, which is used to create relatives for all segments of the CMS-HCC model, is \$8,034.71.

Differences between the current model and the revised model will occur for several reasons. Changes in the marginal cost attributable to an HCC, relative to changes in the average cost, can alter the relative factor associated with that HCC. Similarly, changes in the marginal cost attributable to an HCC, relative to changes in the marginal costs attributable to all other HCCs, can also result in changes in the relative factor associated with that HCC. In addition, changes in the relative factors will result from changes in the assignment of ICD-9 codes to HCCs, as well as the addition or deletion of HCCs to the model.

Although the recalibrated model retains an average 1.0 risk score, individual beneficiaries’ risk scores may change, as may plan average risk scores, depending on each individual beneficiaries’ combination of diagnoses.

### *Changes to model*

The 2011 model has 87 HCCs, up from 70. The increase in HCCs is a result of new HCCs added to the model and the splitting of several existing HCCs. Below we discuss the major changes in HCCs.

#### HCCs added to the model:

HCCs related to two levels of severity of dementia have been added to the CMS-HCC model: dementia with complications and dementia without complications. Dementia HCCs were added to the model due to the high costs associated with the condition.

Two new HCCs related to metabolic disorders were added: “Other significant endocrine and metabolic disorders” and “Morbid Obesity.” Although BMI codes have been used inconsistently, we believe that they will become more important in coding.

In addition, we have added “Fibrosis of the Lung and Other Chronic Lung Disorders” and “Exudative Macular Degeneration.”



Changes to existing HCCs:

A number of diseases that are currently included in HCCs with other related conditions have been broken out into their own HCCs. These conditions include quadriplegia, cerebral palsy, ALS and other motor neuron disease, and atherosclerosis of the extremities with ulceration or gangrene. Additional conditions that have been broken out into separate HCCs are pressure ulcers and kidney disease. Four HCCs for pressure ulcers are included in the model. However, these four HCCs are constrained to be equal to each other. The reason for this decision is that the diagnoses codes for the severity of pressure ulcers are new in FY2010 and were not available for the data years when we recalibrated the model. Instead, the model was recalibrated using pressure ulcer diagnoses codes available in the 2006 data – codes that did not specify severity. As more data become available, we expect these factors will be differentiated.

The current trio of kidney-related diseases – dialysis status, renal failure, and nephritis – are broken out further by dividing “Renal Failure” into “Acute Renal Failure” and five severity levels of chronic kidney disease (CKD). Since CKD coding is developing, we have constrained the CKD HCCs to equal the same coefficient.

The 2011 model consolidates the number of diabetes HCCs from the five HCCs in the current model to three: diabetes with acute complications, diabetes with chronic complications, and diabetes without complications.

*Disease interactions:* The coefficients for the community model continue to have six disease interactions, the net result of the following changes: three disease interactions were removed, three were added, two were retained, and one was modified.

- The disease interactions retained from the current model are: Diabetes\*CHF and CHF\*COPD
- The Renal\*CHF interaction term has been modified in that “renal disease” now encompasses all kidney-related HCCs, instead of just renal failure.
- The disease interactions that were removed are: Diabetes\*CVD, COPD\*CVD\*CAD, and Renal Failure\*CHF\*diabetes.
- New disease interaction terms are: Sepsis\*Cardiorespiratory failure, Cancer\*Immune disorders, and COPD\*Cardiorespiratory failure.

The institutional set of coefficients now has twelve disease interactions instead of five. It retains two interactions from the current model -- Diabetes\*CHF and CHF\* COPD – and adds ten new disease interaction terms:

- COPD\*Cardiorespiratory failure
- Sepsis\*Pressure Ulcer
- Sepsis\*Artificial Openings for Feeding or Elimination
- Artificial Openings for Feeding or Elimination\*Pressure Ulcer
- COPD\*Aspiration and Specified Bacterial Pneumonias

- Aspiration and Specified Bacterial Pneumonias\*Pressure Ulcer
- Sepsis\*Aspiration and Specified Bacterial Pneumonias
- Schizophrenia\*COPD
- Schizophrenia\*CHF
- Schizophrenia\*Seizure Disorders and Convulsions

*Disabled interactions:* The community set of coefficients retains all five existing disabled-disease interactions and adds two additional disabled-disease interactions: Disabled\*Chronic Pancreatitis and Disabled\*Complications of Specified Implanted Device or Graft.

The institutional set of coefficients retains one of the four disabled-disease interactions – Disabled\*Opportunistic infections – and adds five new disabled-disease interactions:

- Disabled\*CHF
- Disabled\*Pressure Ulcer
- Disabled\*Chronic Ulcer of the Skin, Except Pressure Ulcer
- Disabled\*Bone/Joint Muscle Infections/Necrosis
- Disabled\*Multiple Sclerosis

CMS continues to include Medicaid as a demographic factor in the CMS-HCC risk adjustment model, which incorporates attributes of title XIX eligible beneficiaries, including low income status. CMS also considered including a factor reflecting the costs of low income Medicare beneficiaries who are not Medicaid eligible, using data on those beneficiaries who have qualified for the low income subsidy under Part D (but who are not Medicaid eligible). When included in the model, the coefficient for this additional low income factor was quite low. Further, a low t-value (< 2) indicated that the predictive power of the coefficient was not reliable. Thus, we did not include a factor for low income (but not Medicaid eligible) in the updated CMS-HCC model.

In Attachment V of this Notice, we provide draft relative factors for each HCC in each segment of the aged-disabled model. Table 1 in Attachment provides the draft factors of the community and institutional segments of the CMS-HCC model. Table 2 provides the new enrollee factors. Table 3 provides the updated hierarchies for the revised HCCs, and Table 4 provides a comparative list of current and revised HCCs.

## **Section B. New Enrollee Risk Scores for Chronic SNPs**

New enrollee risk scores are demographic-only risk scores and are used as in payment for beneficiaries who are not full risk (do not have 12 months of Part B in the data collection period). MA organizations that offer chronic condition Special Needs Plans (SNPs) have expressed concern that the new enrollee risk scores do not reflect the full risk of their enrollees, given that these beneficiaries must have certain conditions to be enrolled in these plans. For 2011, CMS will develop a methodology that will allow us to adjust new enrollee risk scores for beneficiaries enrolled in chronic condition SNPs to take into account the condition(s) that

enrollees in these particular SNPs must have as a condition of enrollment. CMS will release the final methodology in the 2011 Announcement.

### **Section C. Normalization Factors**

When we calibrate a risk adjustment model and normalize the risk scores to 1.0, we produce a fixed set of dollar expenditures and coefficients appropriate to the population and data for that calibration year. When the model with fixed coefficients is used to predict expenditures for other years, predictions for prior years are lower and predictions for succeeding years are higher than for the calibration year. Because average predicted expenditures increase after the model calibration year due to coding and population changes, CMS applies a normalization factor to adjust beneficiaries' risk scores so that the average risk score is 1.0 in subsequent years.

The normalization factor is derived by first using the model to predict risk scores over a number of years. Next, we trend the risk scores to determine the annual percent change in the risk score. This annual trend is then compounded by the number of years between the model denominator year and the payment year to produce the normalization factor.

Below are the preliminary normalization factors for each model. The final normalization factors will be published in the 2011 Announcement, to be released April 5, 2010.

#### **C1. Normalization Factor for the CMS-HCC Model**

The preliminary 2011 normalization factor for the aged-disabled model is 1.031.

To calculate the normalization factor for the CMS-HCC risk adjustment model, CMS used the risk adjustment model to be implemented in 2011 to calculate five years of risk scores for the FFS population. For the 2011 normalization factor, CMS used risk scores from 2005-2009 to calculate an annual trend, which was then compounded for two years, to adjust for two years of FFS risk score growth, i.e., from the denominator year of 2009 to the payment year of 2011.

#### **C2. Normalization Factor for the ESRD Dialysis Model**

The preliminary 2011 normalization factor for the ESRD dialysis model is 1.008.

To calculate the normalization factor for the CMS-HCC ESRD dialysis model, CMS uses the ESRD risk adjustment model to be implemented in 2011 and calculates five years of dialysis risk scores for the FFS population. For the 2011 normalization factor, CMS used risk scores from 2005-2009 to calculate an annual trend. The 2011 factor will adjust for two years of risk score growth, i.e., from the denominator year of 2009 to the payment year of 2011, and will be applied at a phased-in percentage of 100%. (As discussed in the 2008 Advance Notice, the ESRD Dialysis normalization factor is being applied on the same transition schedule as is the transition of the ESRD State ratebook; see Section G1.)

### **C3. Normalization Factor for Functioning Graft Enrollees' Risk Scores**

The preliminary 2011 normalization factor for the Functioning Graft segment of the ESRD risk adjustment model is the same as that used for the CMS-HCC model: 1.031.

We calculate the functioning graft normalization factor using the same annual trend that we use in calculating the normalization factor for the aged/disabled risk scores under the CMS-HCC model because the functioning graft model uses the same factors as the CMS-HCC model, with the exception of several HCCs that are modified for this population of beneficiaries.

### **C4. Normalization Factor for the Rx Hierarchical Condition Category (RxHCC) Model**

The preliminary 2011 normalization factor for the RxHCC model is 1.029. This normalization factor reflects a trend calculated on three years of risk score data (2006-2008).

In 2011, we intend to normalize Part D risk scores based on Part D enrollees, as we did in 2010. This helps ensure that the average enrollee risk score equals 1.0 and keeps the base beneficiary premium at the appropriate proportion of aggregate plan payment: approximately 25.5 percent from the base beneficiary premium and 74.5 percent from the government. To calculate the normalization factor for the RxHCC risk adjustment model, CMS used the risk adjustment model to be implemented in 2011 and calculated three years of risk scores for the population of Medicare beneficiaries enrolled in Part D plans. We used only three years of data for the trend because we only had Part D enrollees' risk scores for 2006 through 2008. We then compounded the annual trend for three years, to adjust for three years of Part D risk score growth, i.e., from the denominator year of 2008 to the payment year of 2011.

### **Section D. Aged/Disabled MSP Factor**

MA capitation rates are calculated as if Medicare were always the primary payer; adjustments to the rates for situations in which Medicare is secondary are made as part of actual payment. The MSP adjustment factor is applied as a reduction to payment for working aged and working disabled beneficiaries. The MSP factor is calculated as the ratio of the actual Medicare spending for all MSP beneficiary months to the predicted amount of Medicare spending that the model predicts for these MSP beneficiary months. Actual spending was calculated using the 2007 claims from the same analytic files used to recalibrate the CMS-HCC model. The predicted amount was calculated using the newly recalibrated CMS-HCC model. MSP status was determined using the working aged/working disabled status indicator from the Medicare Enrollee Database (EDB) for 2007.

CMS has recalculated the MSP adjustment factor for working aged and working disabled beneficiaries. The current aged/disabled MSP factor of 0.174 will be revised; the preliminary 2011 aged/disabled MSP factor is 0.163.

## Section E. Frailty Adjustment

### E1. Frailty Adjustment Factors

CMS has recalibrated the frailty factors for CY 2011. The purpose of frailty adjustment is to predict the Medicare expenditures of community populations with functional impairments that are unexplained by the CMS-HCC risk adjustment model. Whenever CMS recalibrates the CMS-HCC risk adjustment model, the amount of unexplained Medicare expenditures can change. Thus, it is necessary to simultaneously recalibrate the frailty factors. For 2011, only payments made to PACE organizations will be adjusted for frailty. Table II-1 below and Appendix V presents the preliminary recalibrated frailty factors for CY 2011.

**Table II-1. Preliminary Recalibrated Frailty Factors for CY 2011**

ADL	2009 Factors (Non-Medicaid)	2011 Recalibrated Factors (Non- Medicaid)	2009 Factors (Medicaid)	2011 Recalibrated Factors (Medicaid)
0	-0.093	-0.079	-0.180	-0.201
1-2	+0.112	+0.118	+0.035	+0.000
3-4	+0.201	+0.187	+0.155	+0.105
5-6	+0.381	+0.335	+0.200	+0.121

CMS is not proposing to change the way we calculate the contract-level frailty score; we will use the results from each contract's 2010 HOS-M survey to calculate each contract-level frailty score for CY2011.

### E2. Frailty Adjustment Transition for PACE organizations

Frailty adjustment will be applied to payment to PACE organizations using the transition schedule published in the 2008 Announcement (published April 2, 2007). PACE frailty scores for payment year 2011 will be calculated at a blend of 25% of the frailty factors in use prior to 2008 and 75% of the recalibrated frailty factors for 2011. The full transition schedule is as follows:

- In 2008 (year 1): 90% of the pre-2008 frailty factors and 10% of the 2008 frailty factors.
- In 2009 (year 2): 70% of the pre-2008 frailty factors and 30% of the 2009 frailty factors.
- In 2010 (year 3): 50% of the pre-2008 frailty factors and 50% of the 2009 frailty factors.
- In 2011 (year 4): 25% of the pre-2008 frailty factors and 75% of the 2011 frailty factors.
- In 2012 (year 5): 100% of the most recently calibrated frailty factors.

### **E3. Frailty Adjustment Transition for Certain Demonstrations**

Frailty adjustment will no longer be applied to payment to the following MA plan types, per the phase-out schedule published in the 2008 Announcement (published April 2, 2007): Social Health Maintenance Organizations (S/HMOs), Minnesota Senior Health Options (MSHO)/Minnesota Disability Health Options (MnDHO), Wisconsin Partnership Program (WPP) and Massachusetts Senior Care Options (SCO) plans.

The full phase out schedule is as follows:

- In 2008 (year 1): 75% of the pre-2008 frailty factors
- In 2009 (year 2): 50% of the pre-2008 frailty factors
- In 2010 (year 3): 25% of the pre-2008 frailty factors
- In 2011: 0% of the pre-2008 frailty factors

### **Section F. Adjustment for MA Coding Pattern Differences**

CMS calibrates the CMS-HCC model using FFS data, and the relative factors reflect the FFS pattern of coding. CMS adjusts for the trend in the rate of increase of diagnoses codes submitted by FFS providers with the application of a normalization factor that is updated annually and that reduces risk scores with the goal that the average remains 1.0 in each payment year. Because MA coding patterns differ from those in FFS, MA risk scores increase more quickly and are, therefore, higher than they would be if MA plans coded in the same manner as FFS providers. Beginning in 2010, CMS instituted a separate adjustment to the Part C risk scores to account for differential coding patterns between MA and FFS. The adjustment for 2010 of 3.41% was based on our estimate of how much lower plans' 2010 risk scores would have been if the disease scores (the portion of the risk score attributable to diagnostic coding) for MA enrollees who stayed in an MA plan during the period 2007 to 2010 ("MA stayers") had grown at the same rate as FFS beneficiaries' risk scores during this period. In calculating the adjustment for MA coding differences, CMS removed the impact of differences in rising risk scores that are attributed to enrollment into and disenrollment out of MA plans, aging and other demographic changes, and adjusted for age and sex effects on disease coding changes.

For 2011, CMS is again proposing a coding pattern adjustment of 3.41%. As with the 2010 adjustment, this proposed adjustment reflects our estimate of differential disease score growth between MA and FFS over a three-year period. We are soliciting comments on whether CMS should revise the methodology to adjust for differential growth between 2007 and 2011. In addition, we are soliciting comments on whether our estimate of the annual differential in disease score growth should be calculated with more recent cohorts. Both of these revisions to the methodology would increase the coding pattern adjustment.

## **Section G. Budget Neutrality**

From 2003 through 2006, CMS implemented risk adjusted payments that were budget neutral to the demographic payments made prior to, and throughout the transition to, full risk adjusted payments by applying to the risk rates 100 percent of the Budget Neutrality (BN) factor. The BN factor was calculated as the estimated difference between payments to MA organizations at 100 percent of the demographic rates and payments at 100 percent of the risk rates.

As specified by the Deficit Reduction Act of 2005, and as implemented under section 1853(k)(2)(C), the phase-out of budget-neutral risk adjusted payments began in 2007 and will be completed in 2011, when plans will receive no budget neutrality payment adjustment. As shown in the phase out schedule below, 0 percent of the BN factor will be applied to the risk rates in 2011.

### Phase-out Schedule for Budget Neutral Risk Adjusted Payments:

The percentage of the BN factor that is applied to the risk rates is:

- 2007: 55%
- 2008: 40%
- 2009: 25%
- 2010: 5%
- 2011: 0%

## **Section H. ESRD Payment**

Pursuant to Section 1853(a)(1)(H) of the Act, CMS has the authority to establish “separate rates of payment” with respect to ESRD beneficiaries.

### **H1. Transition to New ESRD Payment**

As first announced in the 2008 Advance Notice, CMS continues the phase-in of the revised State capitation rates used to determine payments for enrollees in dialysis and transplant status.

The full transition schedule is as follows:

- In 2008 (year 1): a blend of 75% old ratebook-based payments and 25% revised ratebook-based payments.
- In 2009 (year 2): a blend of 50% old ratebook-based payment and 50% revised ratebook-based payments.
- In 2010 (year 3): a blend of 25% old ratebook-based payments and 75% revised ratebook-based payments.
- In 2011: 100% of the revised 2008 ratebook.

## **H2. ESRD State Rates**

For 2011, CMS has revised the underlying dialysis rates based on FFS costs. To calculate dialysis State rates, CMS used Medicare FFS claims data by State for beneficiaries in dialysis status between the years 2006 and 2008 to determine the average geographic adjustment (AGA) for each State and to determine the 2008 national average per capita FFS dialysis cost. CMS then adjusted the 2008 national average by each State AGA to determine revised 2008 State rates and trended these rates to 2011 using the ESRD dialysis growth trend. To determine the 2011 ESRD rates, CMS will take the greater of the revised 2008 ESRD dialysis-only State rates grown by the ESRD growth trend to 2011 or the 2010 dialysis only rate restandardized by the new dialysis risk model grown by 2%. The final 2011 State rates will be developed by taking into account the MIPPA '08 carve-out of indirect medical education (IME) and the \$5.25 ESRD user fee.

The distribution of changes in payment across plans using the revised State rates will depend on how many ESRD dialysis beneficiaries are enrolled in each plan, as well as the change in the ESRD State rates.

## **H3. Recalibration and Clinical Update of ESRD Risk Adjustment Models**

The ESRD Risk Adjustment Model uses the same HCCs that are incorporated in the CMS-HCC model used for the risk scores of aged/disabled beneficiaries. Using these same HCCs, the ESRD model segments are calibrated using the appropriate ESRD population. Therefore, the resulting coefficients reflect cost and diagnosis coding for this subgroup of beneficiaries. Unlike the CMS-HCC model we exclude (i.e., constrain to zero) the relative factors for kidney-related HCCs and interaction terms. All of the components of the ESRD model were recalibrated for 2011:

- **Dialysis:** The ESRD dialysis risk adjustment model is a single set of coefficients for both community and institutional enrollees in dialysis status. The ESRD dialysis model is calibrated using diagnoses and expenditure data for all beneficiaries in FFS who are in dialysis status.
- **Dialysis new enrollee:** The set of demographic-only new enrollee factors are estimated for beneficiaries in dialysis status that do not have 12 months of Part B in the data collection year. The dialysis new enrollee factors are estimated using data from all FFS beneficiaries in dialysis status.
- **Transplant:** Transplant factors are estimated for the first three months following a transplant. The first month's factor is the largest, with months 2 and 3 smaller.
- **Functioning graft:** the functioning graft set of HCCs is identical to the CMS-HCC model, with the addition of a set of postgraft "add on" factors that take into account the cost of immunosuppressant drugs for this population.



- **Functioning graft new enrollee:** This segment of the ESRD model uses the same factors as the CMS-HCC new enrollee model, with the addition of a set of postgraft “add on” factors that take into account the cost of immunosuppressant drugs for this population.

#### **H4. ESRD MSP Factor**

Using the same methodology as used to recalculate the aged/disabled MSP factor, CMS has recalculated the MSP adjuster for ESRD beneficiaries. The current ESRD MSP adjustment factor of 0.215 will be revised; the preliminary 2011 ESRD MSP factor is 0.189. CMS will continue to apply the ESRD MSP adjustment to individual-level payments.

#### **Section I. IME Phase Out**

Section 161 of the Medicare Improvements for Patients and Providers Act of 2008 (MIPPA) requires CMS to phase out indirect medical education (IME) amounts from MA capitation rates. PACE programs are excluded from the IME payment phase out. Payment to teaching facilities for indirect medical education expenses for MA plan enrollees will continue to be made under fee-for-service Medicare.

For purposes of making this adjustment, we will calculate base 2011 FFS rates including the IME amount. This amount will serve as the basis for the 2011 amount that we will carve out of the rates. The absolute effect of the IME phase-out on each county will be determined by the amount of IME included in the FFS rate. By statute, however, the maximum reduction for any specific county in 2011 is 1.2% of the FFS rate. To help plans identify the impact, CMS will separately identify the amount of IME for each county rate in the 2011 ratebook. We will also publish the rates with and without the IME reduction for the year.

#### **Section J. EHR Incentives**

Section 1853(l)(1) of the Act, as added by section 4101(c) of the HITECH Act, provides for incentive payments to qualifying MA organizations for certain of their affiliated eligible professionals (EPs) and hospitals that are meaningful users of certified EHR technology during the relevant EHR reporting period for a payment year. These incentive payments to qualifying MA organizations may be available as early as calendar year 2011, payable in 2012. CMS has issued a proposed rule that would implement these provisions, CMS-0033-P, which was published on January 13, 2010.

#### **Section K. Physician Quality Reporting Initiative (PQRI) and E-Prescribing**

Payments to physicians who have contracted with MAOs generally are governed by the terms of the contract. In the case of payments to a contracting physician (whether the contract is deemed or signed) under a PFFS plan meeting access requirements by paying what Medicare would pay, the MAO is required to pay the contractor the full amount he or she would receive if the enrollee

were a Medicare beneficiary not enrolled in an MA plan. This would include bonus and incentive amounts if the physician would receive them in connection with treating a Medicare beneficiary not enrolled in an MA plan.

Physicians who have not contracted with an MAO, but who provide covered professional services to an enrollee of an MA plan offered by an organization are similarly required to be paid the amount they would receive for a non-MA enrollee, and thus would be eligible for both the Physician Quality Reporting Initiative (PQRI) bonus payment from the organization to the extent they are due such payments under the original Medicare program. This rule would also apply to payments made by a cost-contracting HMO for plan-covered services to a non-contracting physician. When a physician is determined by original Medicare to have satisfied the requirements and qualified for an incentive under the PQRI, he or she should expect to receive a bonus check from any MAOs or cost-contracting HMOs which he or she has billed as a non-contracted provider, or for which he or she has provided covered professional services under a PFFS plan that meets access standards by paying the Medicare payment rate. The amount of the PQRI payment is calculated just as it is calculated for original Medicare, that is to say a percentage (2% for 2009 and 2010) of Medicare allowed charges for covered professional services submitted to the plan during the reporting period.

When a physician is determined by Medicare to be a successful e-prescriber and qualifies for the 2% incentive under the 2009 E-prescribing Incentive Program, MAOs and cost-contracting HMOs are required to pay non-contracted physicians, and in the case of PFFS plans meeting access standards through payment, contracting physicians, 2% of the Medicare allowed charges for any applicable, covered professional services rendered in 2009 to a member of their plan. Such payments are due whether or not the non-contracting or PFFS-contracting physician has participation status under the original Medicare program. This policy also applies to non-physician practitioners who would qualify for such payments from original Medicare.

Similar to the manner in which we released 2007 and 2008 PQRI files through HPMS, a file of the providers entitled to 2009 PQRI and e-prescribing payments will be provided in the fall of 2010. (See HPMS PQRI notices dated 6/27/08 and 10/26/09.) Bonus and incentive payments for claims incurred in a given year are payable the following year in a lump sum. Additional technical guidance will be provided at the time data files are released.

## **Section L. Clinical Trial Policy**

Medicare Advantage plans must cover all Medicare services including clinical trials. Under the authority in section 1853(c)(7) of the Act to “adjust” payment “appropriately,” CMS since 2001 has provided for fee-for-service reimbursement for clinical trial costs, and permitted MA organizations to designate that such payments be made directly to the providers furnishing such services to MA enrollees. Under this arrangement, MA enrollees generally are required under the MA plan to pay FFS levels of cost sharing for the services related to clinical trials. MA plans

may reduce cost sharing related to clinical trials; however few, if any, have chosen to do so. In addition, to date, CMS has not required plans to apply these cost share amounts to the beneficiaries' out-of-pocket maximum.

In 2011, we will continue the policy of paying on a fee-for-service basis for clinical trial items and services provided to MA plan members that are covered under the relevant National Coverage Determinations on clinical trials. However, starting in 2011, as a condition for CMS making payment for MA enrollees' clinical trial costs on a fee-for-service basis, MA plans will be required to reimburse beneficiaries for cost sharing incurred for clinical trials services that exceeds the MA plans' in-network cost sharing for the same category of service. In addition, starting in 2011, clinical trial cost sharing must also be included in the out-of-pocket maximum calculation.

### **Section M. Adjustment to FFS Per Capita Costs for VA-DOD Costs**

Section 1853(c)(1)(D)(iii) of the Act directs the Secretary to make an appropriate adjustment to the payment rates to reflect CMS' "estimate, on a per capita basis, of the amount of additional payments that would have been made in the area involved under this title if individuals entitled to benefits under this title had not received services from facilities of the Department of Defense (DoD) or the Department of Veterans Affairs." In the 2010 Advance Notice dated February 20, 2009, the Office of the Actuary (OACT) concluded that there was insufficient evidence to incorporate any VA adjustment into the rate making process and did not have DoD data to analyze.

OACT has since obtained TRICARE eligibility data from the DoD. TRICARE is the DoD's health care program that covers eligible Uniformed Services beneficiaries for medical care. The vast majority of TRICARE beneficiaries are enrolled in the TRICARE For Life (TFL) option which pays secondary to Medicare. Another TRICARE option available to TRICARE/Medicare dual-eligibles is the Uniformed Services Family Health Plan (USFHP). The USFHP is available to TRICARE members who live near selected civilian medical facilities through which the Plan delivers care. Non-emergency care must be obtained through the USFHP hospital and doctor network. USFHP is primary to Medicare (with very few exceptions) and bills are not generally submitted to Medicare.

In lieu of obtaining cost, use and diagnosis data at the beneficiary level, the methodology is the same as was used to analyze the VA data last year. The analysis was performed separately for all DoD and USFHP only enrollees and compares the average FFS costs to determine if there are significant differences between the DoD groups and the total Medicare population. To approximate an adjustment to the county fee for service (FFS) payment rates, OACT analyzed

the cost impact of removing the dual-eligibles from the Medicare claims and enrollment<sup>1</sup>. Specifically, OACT calculated the ratio of standardized per capita costs of all Medicare beneficiaries excluding dual-eligibles (non-DoD) to all Medicare beneficiaries (or all beneficiaries) for each county. The calculations were based on FFS data for calendar years 2004-2006.

OACT analyzed the ratios in counties with at least 10 members in the respective groups and found that there was no statistical significance of the DoD ratios but the USFHP-only ratios were significant. Accordingly, adjustments will be made to counties with at least 10 USFHP members. The adjustment will be to adjust the FFS rates by the ratios calculated. Based on applying the adjustments to the 2009 FFS rates, the average monthly FFS rate will increase in 138 affected counties by approximately \$1.85, with a range of a decrease of \$0.10 to an increase of \$12.04 and fifteen counties will experience increases in FFS rates of \$5.00 or more.

#### **Section N. Location of Network Areas for PFFS Plans in Plan Year 2012**

Section 162(a)(1) of MIPPA amended section 1852(d) of the Act by creating a new requirement for MA organizations offering certain non-employer MA PFFS plans to enter into signed contracts with a sufficient number of providers to meet the access standards applicable to coordinated care plans. Specifically, for plan year 2011 and subsequent plan years, MIPPA requires that non-employer MA PFFS plans that are offered in a network area (as defined in section 1852(d)(5)(B) of the Act) must meet the access standards described in section 1852(d)(4)(B) of the Act through signed contracts with providers. These PFFS plans may no longer meet access standards by establishing payment rates that are not less than the rates that apply under Original Medicare and having providers deemed to be contracted as described in 42 CFR 422.216(f).

“Network area” is defined in section 1852(d)(5)(B) of the Act, for a given plan year, as the area that the Secretary identifies (in the announcement of the risk and other factors to be used in adjusting MA capitation rates for each MA payment area for the previous plan year) as “having at least 2 network-based plans (as defined in section 1852(d)(5)(C) of the Act) with enrollment as of the first day of the year in which the announcement is made.” The list of “network areas” for plan year 2012 will appear in the *Announcement of Calendar Year (CY) 2011 Medicare Advantage Capitation Rates and Medicare Advantage and Part D Payment Policies*. The list of “network areas” for plan year 2011 can be found on the CMS website at <http://www.cms.hhs.gov/PrivateFeeForServicePlans/>. We will use January 1, 2010 enrollment data to identify the location of “network areas” for plan year 2012.

---

<sup>1</sup> For this analysis, dual-eligibles are defined as those Medicare beneficiaries who are also eligible to receive care through the Department of Defense.

### **Attachment III. Changes in the Payment Methodology for Medicare Part D for CY 2011**

#### **Section A. Recalibration and Clinical Update of the RxHCC Risk Adjustment Model**

The RxHCC risk adjustment model is used to adjust payments for Part D benefits offered by stand alone Prescription Drug Plans (PDPs), Medicare Advantage-Prescription Drug plans (MA-PDs), and PACE organizations. The RxHCC model includes both disease and demographic factors. The current RxHCC model was developed using 2000 and 2002 data from Medicaid programs and the Federal Employee Health Benefit Program and utilizes a base set of coefficients and applies multiplicative factors for beneficiaries with low income or long term institutional status. A separate set of coefficients, based on demographic factors alone, is used to calculate new enrollee risk scores. The RxHCC model was implemented for payment in 2006 and has not been recalibrated since then.

In 2011, CMS will implement an updated version of the RxHCC risk adjustment model. The 2011 model will encompass several key changes:

- (1) the use of Part D program data, specifically, the use of Prescription Drug Event (PDE) data to calculate the Part D expenditures used in the recalibration of the model,
- (2) updates to the data years used to recalibrate the model, and
- (3) a clinical revision of the diagnoses included in each prescription drug hierarchical condition category (RxHCC).

The 2011 RxHCC model is estimated in the same manner as other HCC-based risk adjustment models, meaning that diagnoses from one year are used to predict costs (in the case of Part D, plan liability costs) in the following year.

CMS recalibrated the RxHCC risk adjustment model using diagnosis data from FFS claims and expenditure data from Prescription Drug Event (PDE) data for beneficiaries who are enrolled in Original Medicare in the base year (2006). We did not use data for beneficiaries enrolled in MA-PD plans because these plans have been submitting diagnostic data limited to the diagnoses included in the current RxHCC payment model. Without the additional diagnoses, these beneficiaries' data were not comprehensive enough for use in the clinical update. To recalibrate the model, data for 100% of FFS beneficiaries enrolled in a Part D plan were used, and 2007 diagnoses were used to predict 2008 expenditures. In addition to the data update in recalibrating the model, CMS also undertook a clinical update that involved reviewing the assignment of all ICD-9 diagnoses codes to diagnosis groupings that are used as the building blocks of the condition categories (CC). In consultation with a panel of outside clinicians, CMS reviewed the ICD-9 codes grouped with other clinically-similar ICD-9 codes. These diagnosis groupings were then mapped to condition categories based on similar clinical characteristics and severity, and cost implications. Both the panel of clinicians and analyses of cost data informed the creation of condition categories.

Coefficients for condition categories were estimated by regressing the plan liability for the Part D basic benefit for each beneficiary onto their demographic factors and condition categories, as indicated by their diagnoses. Resulting dollar coefficients represent the marginal (additional) cost of the condition or demographic factor (e.g., age/sex group, low income status, disability status).

Changes to the condition categories – additions, deletions, and revisions – are based on each category’s ability to predict costs for Medicare Part D benefits. Condition categories that don’t predict costs well –because the coefficient is small, the t-value is low, the number of beneficiaries with a certain condition is small so the coefficient is unstable, or the condition doesn’t have well specified diagnostic coding – are not included in the model. Diagnoses mapped to condition categories that have been in the risk adjustment model are sometimes mapped to multiple condition categories, or are otherwise revised, when the costs associated with diagnoses codes with these RxHCCs differentially predict costs.

In a final step, hierarchies were imposed on the condition categories, ensuring that more advanced and costly forms of a condition are reflected in a higher coefficient.

There were no changes in the demographic factors used in the RxHCC model.

In order to use the risk adjustment model to calculate risk scores for payment, we create relative factors for each demographic factor and RxHCC in the model. The relative factors are used to calculate risk scores for individual beneficiaries, which will average 1.0 in the denominator year.

We create relative factors by dividing all the dollar coefficients by the average per capita predicted expenditure for a specific year. The denominator for the revised RxHCC risk adjustment model is developed using data for Medicare beneficiaries enrolled in both MAPDs and PDPs. We do this in order to set the average RxHCC risk score to 1.0 for the enrolled population. We used a denominator of average per capita costs for 2008 to create the relative factors for the model. The denominator, which is used to create relatives for all segments of the model, is \$1,086.61.

Recalibration of the RxHCC model can result in changes in risk scores for individual beneficiaries and for average plan risk scores, depending on each individual beneficiary’s combination of diagnoses.

### ***Changes to model***

The final revised RxHCC risk adjustment model is the result of clinical input regarding the composition of each RxHCC and of contribution to total medical costs. There are several key changes in the RxHCC model:

- As a result of the clinical revision of the model and changing cost patterns, the 2011 model has 78 RxHCCs, compared with the 84 RxHCCs for the model used for payment years 2006-

2010. The decrease in RxHCCs is a net result of the addition of new RxHCCs, the splitting of several existing RxHCCs, and the removal of a number of RxHCCs.

- Instead of a base model with multipliers for low income and long term institutional status, the 2011 RxHCC model will have 5 sets of coefficients: long term institutional, aged low income, aged non-low income, disabled low income, and disabled non-low income. In using PDE data, we were able to observe that these five groups of beneficiaries have distinct differences in costs, making the use of interaction terms for the disabled population unwieldy. In addition, there are variations in costs across RxHCCs in each set of coefficients that uniform multipliers could not accurately accommodate.

Differences between the current model and the revised model will occur for several reasons. In the new RxHCC model, each set of coefficients reflects the relative marginal costs of a different subset of beneficiaries. Further, changes in the marginal cost attributable to an RxHCC relative to changes in the average cost can alter the relative factor associated with that RxHCC. Similarly, changes in the marginal cost attributable to an RxHCC relative to changes in the marginal costs attributable to all other RxHCCs can also result in changes in the relative factor associated with that RxHCC. In addition, changes in the relative factors will result from changes in the assignment of ICD-9 codes to RxHCCs, as well as the addition or deletion of RxHCCs to the model.

Below we discuss the major changes in RxHCCs.

#### New RxHCCs added to the model:

Four of the newly added RxHCCs are related to developmental disabilities, including three levels of severity of mental retardation/development disability, and one RxHCC for autism.

In addition, other new RxHCCs include narcolepsy and cataplexy, morbid obesity, and gram-negative/Staphylococcus Pneumonia and Other Lung Infections.

#### Changes to existing RxHCCs:

A number of conditions were split out from RxHCCs in which they were grouped with other related conditions; newer data indicated that these conditions have distinct cost patterns that warrant the creation of separate RxHCCs. These newly separated RxHCCs are:

- Alzheimer's
- "Chronic pancreatic disease" split into "chronic pancreatitis" and other pancreatic disorders
- Sickle Cell anemia
- Pulmonary hypertension and other pulmonary heart disease, and coronary artery disease.
- Lung transplant, pancreas transplant

RxHCCs that are no longer included in the RxHCC risk adjustment model:

The following RxHCCs have been removed from the model:

- 3 RxHCCs related to Ear, Nose, Throat diseases
- 6 RxHCCs related to Urinary, Genital diseases
- 2 RxHCCs related to Injury
- Muscular Dystrophy
- Huntington's
- "Empyema, Lung Abscess, and Fungal and Parasitic Lung Infections"
- "Acute Bronchitis and Congenital Lung/Respiratory Anomaly"
- Macular Degeneration, and Glaucoma and Keratoconus (Open-Angle Glaucoma is a newly-defined RxHCC)

In Attachment V of this Notice, we provide draft coefficients for each RxHCC for each segment of the aged-disabled model.

**Section B. LIS Benchmarks**

The intent of the low-income benchmark is to provide fully-subsidized drug coverage options for beneficiaries with limited means, while providing strong incentives for sponsors to bid competitively. The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) directs CMS to use a weighted average of plans' premiums for basic prescription drug coverage to calculate the regional low-income benchmark premium amount used in the determination of the low-income premium subsidy amount. The low-income benchmarks are released in August on the CMS website at <http://www.cms.hhs.gov/MedicareAdvtgSpecRateStats/>.

Under the statutorily-required weighting methodology, the low-income benchmark premium amount in certain regions is significantly lower than most plans' premiums. This is because MA-PD sponsors typically lower their Part D premiums through the application of Part C rebates. As a result, the Part D premiums for MA-PD plans tend to be lower than PDP premiums, which results in significantly lower benchmark amounts in regions with higher MA-PD penetration. The relatively low benchmarks result in many PDPs having a basic Part D premium that is not fully covered by the low-income premium subsidy. This reduces the PDP options for low-income beneficiaries in those regions and increases the number of low-income beneficiaries who need to be reassigned each year to different, fully-subsidized plans. CMS plans to continue to look into solutions to this issue for 2011.

**Section C. Reinsurance Payment Demonstration**

In 2006, CMS implemented the Part D Reinsurance Payment Demonstration in response to concerns noted in the Conference Report for the Medicare Prescription Drug, Improvement, and



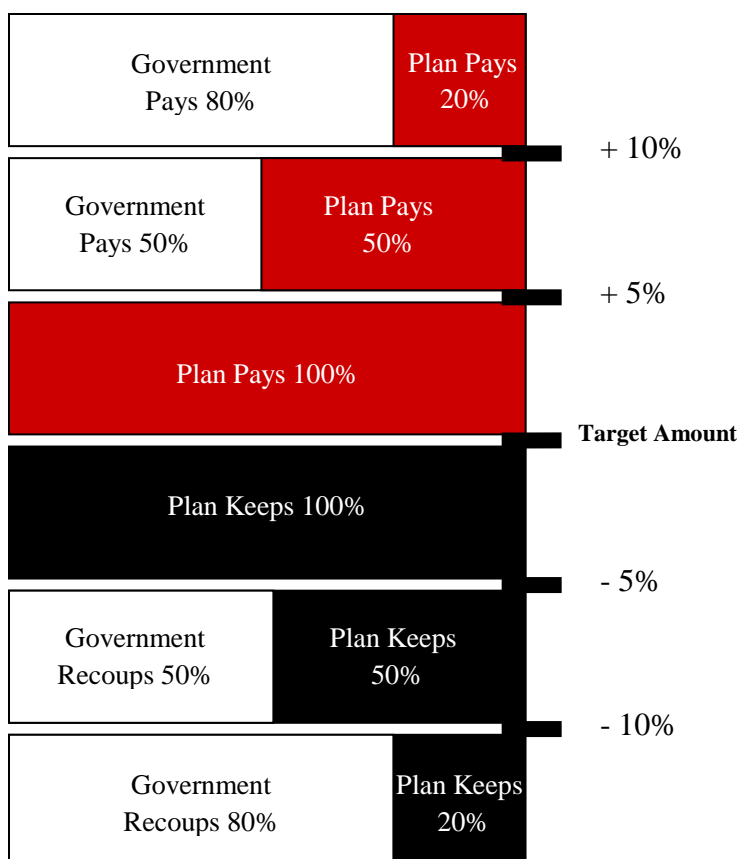
Modernization Act of 2003 regarding the reinsurance provisions of the Part D benefit. Specifically, conferees were concerned that the reinsurance provisions as they relate to the True Out-Of-Pocket (TrOOP) threshold established in section 1860D-2(b)(4)(B) of the Act, could create a disincentive for Part D sponsors to provide enhanced alternative prescription drug coverage. As an incentive for Part D sponsors to offer supplemental drug coverage to Medicare beneficiaries, under the Part D Reinsurance Payment Demonstration Medicare pays participating Part D plans a capitated reinsurance payment that is actuarially equivalent to the federal reinsurance payments they would otherwise receive when a beneficiary reaches the catastrophic phase of the Part D benefit (\$4,550 in TrOOP costs for 2010).

The Part D Reinsurance Payment Demonstration was implemented as a five-year payment demonstration under which CMS applies an alternative payment methodology for Part D reinsurance. As stated in the 2010 Advance Notice, 2010 is the last year for the Part D Reinsurance Payment Demonstration. Therefore, Part D sponsors with Reinsurance Demonstration plans will not be allowed to offer such plans in 2011.

#### **Section D. Payment Reconciliation**

Pursuant to section 1860D-15(e) of the Act and the regulations at 42 CFR 423.336, the risk percentages and payment adjustments for Part D risk sharing are unchanged from contract year 2010. The risk percentages for the first and second thresholds remain at 5% and 10% of the target amount respectively for 2011. The payment adjustments for the first and second corridors are 50% and 80% respectively. Please see Figure 1 below which illustrates the risk corridors for 2008-2011.

**Figure 1. Part D Risk Corridors for 2008-2011**



***Risk sharing when a plan's adjusted allowable risk corridor costs (AARCC) exceed the target amount:***

For the portion of a plan's adjusted allowable risk corridor costs (AARCC) that is between the target amount and the first threshold upper limit (105% of the target amount), the Part D sponsor pays 100% of this amount. For the portion of the plan's AARCC that is between the first threshold upper limit and the second threshold upper limit (110% of the target amount), the government pays 50% and the plan pays 50%. For the portion of the plan's AARCC that exceeds the second threshold upper limit, the government pays 80% and the plan pays 20%.

***Risk sharing when a plan's adjusted allowable risk corridor costs (AARCC) are below the target amount:***

If a plan's AARCC is between the target amount and the first threshold lower limit (95% of the target amount), the plan keeps 100% of the difference between the target amount and the plan's AARCC. If a plan's AARCC is between the first threshold lower limit and the second threshold lower limit (90% of the target amount), the government recoups 50% of the difference between the first threshold lower limit and the plan's AARCC. The plan would keep 50% of the difference

between the first threshold lower limit and the plan's AARC as well as 100% of the difference between the target amount and first threshold lower limit. If a plan's AARCC is less than the second threshold lower limit, the government recoups 80% of the difference between the plan's AARCC and the second threshold lower limit as well as 50% of the difference between the first and second threshold lower limits. In this case, the plan would keep 20% of the difference between the plan's AARCC and the second threshold lower limit, 50% of the difference between the first and second threshold lower limits, and 100% of the difference between the target amount and the first threshold lower limit.

### **Section E. Medicare Part D Benefit Parameters: Annual Adjustments for Defined Standard Benefit in 2011**

In accordance with section 1860D-2(b) of the Social Security Act (the Act), CMS must update the statutory parameters for the defined standard Part D prescription drug benefit each year. These parameters include the annual deductible, initial coverage limit, annual out-of-pocket threshold, and minimum copayments for costs above the annual out-of-pocket threshold. As required by statute, the parameters for the defined standard benefit are indexed to the percentage increase in average per capita total Part D drug expenses for Medicare beneficiaries.

Accordingly, the actuarial value of the drug benefit increases along with any increase in Part D drug expenses, and the defined standard Part D benefit continues to cover a constant share of Part D drug expenses from year to year. The Part D benefit parameters are updated using two indexing methods specified by statute: (i) the annual percentage increase in average expenditures for Part D drugs per eligible beneficiary or the "annual percentage increase", and (ii) the annual percentage increase in the Consumer Price Index (CPI) (all items, U.S. city average).

As required by statute, the first indexing method, the "annual percentage increase," is used to update the following Part D benefit parameters:

- (i) the deductible, initial coverage limit, and out-of-pocket threshold for the defined standard benefit;
- (ii) minimum copayments for costs above the annual out-of-pocket threshold;
- (iii) maximum copayments below the out-of-pocket threshold for certain low-income full subsidy eligible enrollees;
- (iv) the deductible for partial low-income subsidy (LIS) eligible enrollees; and
- (v) maximum copayments above the out-of-pocket threshold for partial LIS eligible enrollees.

The benefit parameters listed above will be increased by .31% for 2011 as summarized by Table III-1 below. This increase reflects the 2010 annual percentage trend of 4.63% as well as a multiplicative update of -4.13% for prior year revisions. Please see Attachment IV for additional information on the calculation of the annual percentage increase.

Per 42 CFR 423.886(b)(3), the cost threshold and cost limit for qualified retiree prescription drug plans are updated after 2006 in the same manner as the deductible and out-of-pocket threshold for the defined standard benefit. Thus, the “annual percentage increase” will be used to update these parameters as well. The cost threshold and cost limit for qualified retiree prescription drug plans will be increased by .31% from their 2010 values.

The statute requires CMS to use the second indexing method, the annual percentage increase in the CPI, to update the maximum copayments below the out-of-pocket threshold for full benefit dual eligible enrollees with incomes that do not exceed 100% of the Federal poverty line. These maximum copayments will be increased by 0% for 2011 as summarized in Table III-1 below.

This increase reflects the 2010 annual percentage trend in CPI of 1.58%, as well as a multiplicative update of -1.64% for prior year revisions. Please see Attachment IV for additional information on the calculation of the annual percentage increase in the CPI.

***Table III-1. Updated Part D Benefit Parameters for Defined Standard Benefit, Low-Income Subsidy, and Retiree Drug Subsidy***

**Annual Percentage Increases**

	Annual percentage trend for 2010	Prior year revisions	Annual percentage increase for 2010
Applied to all parameters but (1)	4.63%	-4.13%	.31%
CPI (all items, U.S. city average): Applied to (1)	1.58%	-1.64%	-.08%

**Part D Benefit Parameters**

	2010	2011
<b>Standard Benefit</b>		
Deductible	\$310	\$310
Initial Coverage Limit	\$2,830	\$2,840
Out-of-Pocket Threshold	\$4,550	\$4,550
Total Covered Part D Spend at Out-of-Pocket Threshold (2)	\$6,440.00	\$6,447.50
Minimum Cost-Sharing in Catastrophic Coverage Portion of the Benefit		
Generic/Preferred Multi-Source Drug	\$2.50	\$2.50
Other	\$6.30	\$6.30
<b>Full Subsidy-Full Benefit Dual Eligible (FBDE) Individuals</b>		
Deductible	\$0.00	\$0.00
Copayments for Institutionalized Beneficiaries		
Maximum Copayments for Non-Institutionalized Beneficiaries		
Up to or at 100% FPL		
Up to Out-of-Pocket Threshold (1)		
Generic/Preferred Multi-Source Drug (3)	\$1.10	\$1.10
Other (3)	\$3.30	\$3.30
Above Out-of-Pocket Threshold	\$0.00	\$0.00
Over 100% FPL		
Up to Out-of-Pocket Threshold		
Generic/Preferred Multi-Source Drug	\$2.50	\$2.50
Other	\$6.30	\$6.30
Above Out-of-Pocket Threshold	\$0.00	\$0.00
<b>Full Subsidy-Non-FBDE Individuals</b>		
Eligible for QMB/SLMB/QI, SSI or applied and income at or below 135% FPL and resources ≤ \$6,600 (individuals) or ≤ \$9,910 (couples) (4)		
Deductible	\$0.00	\$0.00
Maximum Copayments up to Out-of-Pocket Threshold		
Generic/Preferred Multi-Source Drug	\$2.50	\$2.50
Other	\$6.30	\$6.30
Maximum Copayments above Out-of-Pocket Threshold	\$0.00	\$0.00
<b>Partial Subsidy</b>		
Applied and income below 150% FPL and resources below \$11,010 (individual) or \$22,010 (couple)		
Deductible	\$63.00	\$63.00
Coinsurance up to Out-of-Pocket Threshold	15%	15%
Maximum Copayments above Out-of-Pocket Threshold		
Generic/Preferred Multi-Source Drug	\$2.50	\$2.50
Other	\$6.30	\$6.30
<b>Retiree Drug Subsidy Amounts</b>		
Cost Threshold	\$310	\$310
Cost Limit	\$6,300	\$6,300

(1) CPI adjustment applies to copayments for non-institutionalized beneficiaries up to or at 100% FPL.

(2) Amount of total drug spending required to attain out-of-pocket threshold in the defined standard benefit if beneficiary does not have prescription drug coverage through a group health plan, insurance, government-funded health program or similar third party arrangement.

(3) The increases to the LIS deductible, generic/preferred multi-source drugs and other drugs copayments are applied to the unrounded 2010 values of \$62.93, \$1.10, and \$3.31, respectively.

(4) The actual amount of resources allowable will be updated for contract year 2011.

## **Attachment IV. Medicare Part D Benefit Parameters for the Defined Standard Benefit: Annual Adjustments for 2011**

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) directs CMS to update the statutory parameters for the defined standard Part D drug benefit each year. These parameters include the standard deductible, initial coverage limit, and catastrophic coverage threshold, and minimum copayments for costs above the annual out-of-pocket threshold. In addition, CMS is statutorily required to update the parameters for the low income subsidy benefit and the cost threshold and cost limit for qualified retiree prescription drug plans eligible for the Retiree Drug Subsidy. Included in this notice are (i) the methodologies for updating these parameters, (ii) the updated parameter amounts for the Part D defined standard benefit and low-income subsidy benefit for 2011, and (iii) the updated cost threshold and cost limit for qualified retiree prescription drug plans.

As required by statute, the parameters for the defined standard benefit formula are indexed to the percentage increase in average per capita total Part D drug expenses for Medicare beneficiaries. Accordingly, the actuarial value of the drug benefit increases along with any increase in drug expenses, and the defined standard Part D benefit continues to cover a constant share of drug expenses from year to year.

All of the Part D benefit parameters are updated using one of two indexing methods specified by statute: (i) the annual percentage increase in average expenditures for Part D drugs per eligible beneficiary, and (ii) the annual percentage increase in the Consumer Price Index (CPI) (all items, U.S. city average).

### **I. Annual Percentage Increase in Average Expenditures for Part D Drugs Per Eligible Beneficiary**

Section 1860D-2(b)(6) of the Social Security Act defines the “annual percentage increase” as “the annual percentage increase in average per capita aggregate expenditures for covered Part D drugs in the United States for Part D eligible individuals, as determined by the Secretary for the 12-month period ending in July of the previous year using such methods as the Secretary shall specify.” The following parameters are updated using the “annual percentage increase”:

**Deductible:** From \$310 in 2010 and rounded to the nearest multiple of \$5.

**Initial Coverage Limit:** From \$2,830 in 2010 and rounded to the nearest multiple of \$10.

**Out-of-Pocket Threshold:** From \$4,550 in 2010 and rounded to the nearest multiple of \$50.

**Minimum Cost-Sharing in the Catastrophic Coverage Portion of the Benefit:** From \$2.50 per generic or preferred drug that is a multi-source drug, and \$6.30 for all other drugs in 2010, and rounded to the nearest multiple of \$0.05.

**Maximum Copayments below the Out-of-Pocket Threshold for certain Low Income**

**Full Subsidy Eligible Enrollees:** From \$2.50 per generic or preferred drug that is a multi-source drug, and \$6.30 for all other drugs in 2010, and rounded to the nearest multiple of \$0.05.

**Deductible for Low Income (Partial) Subsidy Eligible Enrollees:** From \$63<sup>2</sup> in 2010 and rounded to the nearest \$1.

**Maximum Copayments above the Out-of-Pocket Threshold for Low Income (Partial)**

**Subsidy Eligible Enrollees:** From \$2.50 per generic or preferred drug that is a multi-source drug, and \$6.30 for all other drugs in 2010, and rounded to the nearest multiple of \$0.05.

II. Annual Percentage Increase in Consumer Price Index, All Urban Consumers (all items, U.S. city average)

Section 1860D-14(a)(4) of the Social Security Act specifies that the annual percentage increase in the CPI, All Urban Consumers (all items, U.S. city average) as of September of the previous year is used to update the maximum copayments below the out-of-pocket threshold for full benefit dual eligible enrollees with incomes that do not exceed 100% of the Federal poverty line. These copayments are increased from \$1.10 per generic or preferred drug that is a multi-source drug, and \$3.30 for all other drugs in 2010<sup>3</sup>, and rounded to the nearest multiple of \$0.05 and \$0.10, respectively.

III. Calculation Methodology

Annual Percentage Increase

For the 2007 and 2008 contract years, the annual percentage increases, as defined in section 1860D-2(b)(6) of the Social Security Act, were based on the National Health Expenditure (NHE) prescription drug per capita estimates because sufficient Part D program data was not available. Beginning with the 2009 contract year, the annual percentage increases are based on Part D program data. For the 2011 contract year benefit parameters, Part D program data is used to calculate the annual percentage trend as follows:

$$\frac{\text{August 2009} - \text{July 2010}}{\text{August 2008} - \text{July 2009}} = \frac{\$2,842.77}{\$2,716.87} = 1.0463$$

---

<sup>2</sup> Consistent with the statutory requirements of 1860D-14(a)(4)(B) of the Social Security Act, the update for the deductible for low income (partial) subsidy eligible enrollees is applied to the unrounded 2010 value of \$62.93.

<sup>3</sup> Consistent with the statutory requirements of 1860D-14(a)(4)(A) of the Social Security Act, the copayments are increased from the unrounded 2010 values of \$1.10 per generic or preferred drug that is a multi-source drug, and \$3.31 for all other drugs.

In the formula, the average per capita cost for August 2008 – July 2009 (\$2,716.87) is calculated from actual Part D prescription drug event (PDE) data and the average per capita cost for August 2009 – July 2010 (\$2,842.77) is calculated based on actual Part D PDE data incurred from August – December, 2009 and projected through July, 2010.

The 2011 benefit parameters reflect the 2010 annual percentage trend as well as a revision to the prior estimates for prior years' annual percentage increases. Based on updated NHE prescription drug per capita costs and PDE data, the 2007, 2008, 2009 and 2010 increases are now estimated to be 6.48%, 5.12%, 4.42% and 3.22%, respectively. Accordingly, the 2011 benefit parameters reflect a multiplicative update of -4.13% for prior year revisions. In summary, the 2010 parameters outlined in section I are updated by 0.31% for 2011 as summarized by Table III-1.

**Table III-1. Annual Percentage Increase**

Annual percentage trend for July 2010	4.63%
Prior year revisions	-4.13%
Annual percentage increase for 2011	0.31%

Note: Percentages are multiplicative, not additive. Values are carried to additional decimal places and may not agree to the rounded values presented above.

Annual Percentage Increase in Consumer Price Index, All Urban Consumers (all items, U.S. city average)

The annual percentage increase in the CPI as of September of the previous year referenced in section 1860D-14(a)(4)(A)(ii) is interpreted to mean that, for contract year 2011, the September 2010 CPI should be used in the calculation of the index. To ensure that plan sponsors and CMS have sufficient time to incorporate the cost-sharing requirements into benefit, marketing material and systems development, the methodology to calculate this update includes an estimate of the September 2010 CPI based on the projected amount included in the President's FY2011 Budget. The September 2009 value is from the Bureau of Labor Statistics. The annual percentage trend in CPI for contract year 2011 is calculated as follows:

$$\frac{\text{Projected September 2010 CPI}}{\text{Actual September 2009 CPI}} \text{ or } \frac{219.4}{216.0} = 1.0158$$

(Source: President's FY2011 Budget and Bureau of Labor Statistics, Department of Labor)

The 2011 benefit parameters reflect the 2010 annual percentage trend in the CPI, as well as a revision to the prior estimate for the 2009 annual percentage increase. The 2010 parameter update reflected an annual percentage trend in CPI of 0.36%. Based on the actual reported CPI for September 2009, the September 2009 CPI increase is now estimated to be -1.29%. Thus, the 2011 update reflects a multiplicative -1.64% correction for prior year revisions. In summary, the



cost sharing items outlined in section II are updated by 0% for 2011 as summarized by Table III-2.

**Table III-2. Cumulative Annual Percentage Increase in CPI**

Annual percentage trend for September 2010	1.58%
Prior year revisions	-1.64%
Annual percentage increase for 2010	-0.08%

Note: Percentages are multiplicative, not additive. Values are carried to additional decimal places and may not agree to the rounded values presented above.

#### IV. Retiree Drug Subsidy Amounts

As outlined in §423.886(b)(3) of the regulations implementing the Part D benefit, the cost threshold and cost limit for qualified retiree prescription drug plans that end in years after 2006 are adjusted in the same manner as the annual Part D deductible and out-of-pocket threshold are adjusted under §423.104(d)(1)(ii) and (d)(5)(iii)(B), respectively. Specifically, they are adjusted by the “annual percentage increase” as defined previously in this document and the cost threshold is rounded the nearest multiple of \$5 and the cost limit is rounded to the nearest multiple of \$50. The cost threshold and cost limit are defined as \$295 and \$6,000, respectively, for plans that end in 2009, and, as \$310 and \$6,300, respectively, for plans that end in 2010. For 2011, the cost threshold is unchanged at \$310, and the cost limit is unchanged at \$6,300.

## Attachment V. Preliminary CMS-HCC, ESRD, and Rx-HCC Risk Adjustment Factors

### Tables

Table 1. Preliminary Community and Institutional Relative Factors for the CMS-HCC Risk Adjustment Model .....	35
Table 2. Preliminary CMS-HCC Model Relative Factors for Aged and Disabled New Enrollees .....	40
Table 3. Preliminary list of Disease Hierarchies for the Revised CMS-HCC Model.....	41
Table 4. Comparison of Current and Revised CMS-HCC Risk Adjustment Model HCCs .....	42
Table 5. Preliminary ESRD Continuing Enrollee Dialysis CMS-HCC Model Relative Factors.....	47
Table 6. Preliminary ESRD Demographic CMS-HCC Model Relative Factors for New Enrollees in Dialysis Status .....	50
Table 7. Preliminary ESRD Kidney Transplant CMS-HCC Model Relative Factors for Transplant Beneficiaries .....	51
Table 8. Preliminary ESRD Functioning Graft CMS-HCC Model Relative Factors for Community Population .....	51
Table 9. Preliminary ESRD Functioning Graft CMS-HCC Model Relative Factors for Institutionalized Population .....	55
Table 10. Preliminary ESRD Demographic CMS-HCC Model Relative Factors for Functioning Graft New Enrollees Duration Since Transplant of 4-9 Months .....	59
Table 11. Preliminary ESRD Demographic CMS-HCC Model Relative Factors for Functioning Graft New Enrollees Duration Since Transplant of 10 Months or More.....	60
Table 12. Preliminary CMS RxHCC Model Relative Factors for Continuing Enrollees.....	61
Table 13. Preliminary RxHCC Model Relative Factors for New Enrollees, Non-Low Income.....	67
Table 14. Preliminary RxHCC Model Relative Factors for New Enrollees, Low Income .....	68
Table 15. Preliminary RxHCC Model Relative Factors for New Enrollees, Institutional .....	69
Table 16. Preliminary list of Disease Hierarchies for the Revised RxHCC Model.....	70
Table 17. Comparison of Current and Revised RxHCC Risk Adjustment Model RxHCCs.....	71
Table 18. Preliminary Recalibrated Frailty Factors for CY 2011.....	77

**Table 1. Preliminary Community and Institutional Relative Factors for the CMS-HCC Risk Adjustment Model**

Variable	Disease Group	Community Factor	Institutional Factor
<b>Female</b>			
0-34 Years		0.198	0.783
35-44 Years		0.212	0.723
45-54 Years		0.274	0.700
55-59 Years		0.359	0.805
60-64 Years		0.416	0.773
65-69 Years		0.283	1.004
70-74 Years		0.346	0.947
75-79 Years		0.428	0.874
80-84 Years		0.517	0.792
85-89 Years		0.632	0.699
90-94 Years		0.755	0.594
95 Years or Over		0.775	0.465
<b>Male</b>			
0-34 Years		0.079	0.994
35-44 Years		0.119	0.658
45-54 Years		0.165	0.687
55-59 Years		0.292	0.814
60-64 Years		0.332	0.877
65-69 Years		0.309	1.148
70-74 Years		0.378	1.195
75-79 Years		0.464	1.168
80-84 Years		0.565	1.104
85-89 Years		0.647	1.046
90-94 Years		0.776	0.928
95 Years or Over		0.963	0.842
<b>Medicaid and Originally Disabled Interactions with Age and Sex</b>			
Medicaid_Female_Aged		0.213	
Medicaid_Female_Disabled		0.104	
Medicaid_Male_Aged		0.210	
Medicaid_Male_Disabled		0.113	
Originally Disabled_Female		0.244	
Originally Disabled_Male		0.171	
<b>Medicaid and Originally Disabled</b>			
Medicaid			0.126
Originally Disabled			0.026

Disease Coefficients	Description Label	Community Factor	Institutional Factor
HCC1	HIV/AIDS	0.492	1.374
HCC2	Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock	0.520	0.471
HCC6	Opportunistic Infections	0.557	0.541
HCC8	Metastatic Cancer and Acute Leukemia	2.425	0.928
HCC9	Lung and Other Severe Cancers	1.006	0.610
HCC10	Lymphoma and Other Cancers	0.695	0.363

<b>Disease Coefficients</b>	<b>Description Label</b>	<b>Community Factor</b>	<b>Institutional Factor</b>
HCC11	Colorectal, Bladder, and Other Cancers	0.330	0.255
HCC12	Breast, Prostate, and Other Cancers and Tumors	0.180	0.165
HCC17	Diabetes with Acute Complications	0.344	0.434
HCC18	Diabetes with Chronic Complications	0.344	0.434
HCC19	Diabetes without Complication	0.124	0.187
HCC21	Protein-Calorie Malnutrition	0.653	0.343
HCC22	Morbid Obesity	0.342	0.353
HCC23	Other Significant Endocrine and Metabolic Disorders	0.240	0.248
HCC27	End-Stage Liver Disease	1.003	0.637
HCC28	Cirrhosis of Liver	0.425	0.343
HCC29	Chronic Hepatitis	0.313	0.343
HCC33	Intestinal Obstruction/Perforation	0.337	0.302
HCC34	Chronic Pancreatitis	0.257	0.175
HCC35	Inflammatory Bowel Disease	0.279	0.250
HCC39	Bone/Joint/Muscle Infections/Necrosis	0.423	0.386
HCC40	Rheumatoid Arthritis and Inflammatory Connective Tissue Disease	0.376	0.222
HCC46	Severe Hematological Disorders	1.078	0.638
HCC47	Disorders of Immunity	0.306	0.436
HCC48	Coagulation Defects and Other Specified Hematological Disorders	0.258	0.197
HCC51	Dementia With Complications	0.616	–
HCC52	Dementia Without Complication	0.343	–
HCC54	Drug/Alcohol Psychosis	0.358	0.051
HCC55	Drug/Alcohol Dependence	0.358	0.051
HCC57	Schizophrenia	0.471	0.274
HCC58	Major Depressive, Bipolar, and Paranoid Disorders	0.318	0.274
HCC70	Quadriplegia	1.075	0.497
HCC71	Paraplegia	0.868	0.497
HCC72	Spinal Cord Disorders/Injuries	0.441	0.191
HCC73	Amyotrophic Lateral Sclerosis and Other Motor Neuron Disease	1.016	0.294
HCC74	Cerebral Palsy	0.036	–
HCC75	Polyneuropathy	0.281	0.256
HCC76	Muscular Dystrophy	0.460	0.247
HCC77	Multiple Sclerosis	0.482	–
HCC78	Parkinson's and Huntington's Diseases	0.555	0.110
HCC79	Seizure Disorders and Convulsions	0.252	0.173
HCC80	Coma, Brain Compression/Anoxic Damage	0.533	0.103
HCC82	Respirator Dependence/Tracheostomy Status	1.732	1.567
HCC83	Respiratory Arrest	0.769	0.611
HCC84	Cardio-Respiratory Failure and Shock	0.326	0.346
HCC85	Congestive Heart Failure	0.361	0.226
HCC86	Acute Myocardial Infarction	0.283	0.394
HCC87	Unstable Angina and Other Acute Ischemic Heart Disease	0.283	0.394
HCC88	Angina Pectoris	0.210	0.366

<b>Disease Coefficients</b>	<b>Description Label</b>	<b>Community Factor</b>	<b>Institutional Factor</b>
HCC96	Specified Heart Arrhythmias	0.276	0.227
HCC99	Cerebral Hemorrhage	0.371	0.175
HCC100	Ischemic or Unspecified Stroke	0.333	0.175
HCC103	Hemiplegia/Hemiparesis	0.481	0.063
HCC104	Monoplegia, Other Paralytic Syndromes	0.212	0.063
HCC106	Atherosclerosis of the Extremities with Ulceration or Gangrene	1.313	0.773
HCC107	Vascular Disease with Complications	0.417	0.257
HCC108	Vascular Disease	0.288	0.146
HCC110	Cystic Fibrosis	0.388	0.323
HCC111	Chronic Obstructive Pulmonary Disease	0.388	0.323
HCC112	Fibrosis of Lung and Other Chronic Lung Disorders	0.294	0.252
HCC114	Aspiration and Specified Bacterial Pneumonias	0.691	0.239
HCC115	Pneumococcal Pneumonia, Empyema, Lung Abscess	0.212	0.194
HCC122	Proliferative Diabetic Retinopathy and Vitreous Hemorrhage	0.223	0.366
HCC124	Exudative Macular Degeneration	0.248	0.178
HCC134	Dialysis Status	0.617	0.538
HCC135	Acute Renal Failure	0.617	0.538
HCC136	Chronic Kidney Disease, Stage 5	0.227	0.304
HCC137	Chronic Kidney Disease, Severe (Stage 4)	0.227	0.304
HCC138	Chronic Kidney Disease, Moderate (Stage 3)	0.227	0.304
HCC139	Chronic Kidney Disease, Mild or Unspecified (Stages 1-2 or Unspecified)	0.227	0.304
HCC140	Unspecified Renal Failure	0.227	0.304
HCC141	Nephritis	0.075	0.235
HCC157	Pressure Ulcer of Skin with Necrosis Through to Muscle, Tendon, or Bone	1.071	0.284
HCC158	Pressure Ulcer of Skin with Full Thickness Skin Loss	1.071	0.284
HCC159	Pressure Ulcer of Skin with Partial Thickness Skin Loss	1.071	0.284
HCC160	Pressure Pre-Ulcer Skin Changes or Unspecified Stage	1.071	0.284
HCC161	Chronic Ulcer of Skin, Except Pressure	0.473	0.226
HCC162	Severe Skin Burn or Condition	0.458	–
HCC166	Severe Head Injury	0.533	0.103
HCC167	Major Head Injury	0.141	–
HCC169	Vertebral Fractures without Spinal Cord Injury	0.441	0.179
HCC170	Hip Fracture/Dislocation	0.363	–
HCC173	Traumatic Amputations and Complications	0.379	0.067
HCC176	Complications of Specified Implanted Device or Graft	0.555	0.369
HCC186	Major Organ Transplant or Replacement Status	1.032	1.120
HCC188	Artificial Openings for Feeding or Elimination	0.609	0.658

Disease Coefficients	Description Label	Community Factor	Institutional Factor
HCC189	Amputation Status, Lower Limb/Amputation Complications	0.804	0.384
<b>Disease Interactions</b>			
SEPSIS_CARD_RESP_FAIL	Sepsis*Cardiorespiratory Failure	0.634	
CANCER_IMMUNE	Cancer*Immune Disorders	1.101	
DIABETES_CHF	Diabetes*Congestive Heart Failure	0.237	0.143
CHF_COPD	Congestive Heart Failure*Chronic Obstructive Pulmonary Disease	0.255	0.159
CHF_RENAL	Congestive Heart Failure*Renal Disease	0.201	
COPD_CARD_RESP_FAIL	Chronic Obstructive Pulmonary Disease*Cardiorespiratory Failure	0.420	
CRFAIL_COPD	Cardiorespiratory Failure*Chronic Obstructive Pulmonary Disease		0.524
SEPSIS_PRESSURE_ULCER	Sepsis*Pressure Ulcer		0.538
SEPSIS_ARTIF_OPENINGS	Sepsis*Artificial Openings for Feeding or Elimination		0.453
ARTIF_OPENINGS_PRESSURE_ULCER	Artificial Openings for Feeding or Elimination*Pressure Ulcer		0.361
COPD_ASP_SPEC_BACT_PNEUM	Chronic Obstructive Pulmonary Disease*Aspiration and Specified Bacterial Pneumonias		0.249
ASP_SPEC_BACT_PNEUM_PRES_ULCER	Aspiration and Specified Bacterial Pneumonias*Pressure Ulcer		0.325
SEPSIS_ASP_SPEC_BACT_PNEUM	Sepsis*Aspiration and Specified Bacterial Pneumonias		0.387
SCHIZOPHRENIA_COPD	Schizophrenia*Chronic Obstructive Pulmonary Disease		0.187
SCHIZOPHRENIA_CHF	Schizophrenia*Congestive Heart Failure		0.220
SCHIZOPHRENIA_SEIZURES	Schizophrenia*Seizure Disorders and Convulsions		0.303
<b>Disabled/Disease Interactions</b>			
DISABLED_HCC6	Disabled, Opportunistic Infections	0.564	
DISABLED_HCC34	Disabled, Chronic Pancreatitis	0.757	
DISABLED_HCC46	Disabled, Severe Hematological Disorders	0.818	
DISABLED_HCC54	Disabled, Drug/Alcohol Psychosis	0.432	
DISABLED_HCC55	Disabled, Drug/Alcohol Dependence	0.147	
DISABLED_HCC110	Disabled, Cystic Fibrosis	2.397	
DISABLED_HCC176	Disabled, Complications of Specified Implanted Device or Graft	0.495	
DISABLED_HCC85	Disabled, Congestive Heart Failure		0.320
DISABLED_PRESSURE_ULCER	Disabled, Pressure Ulcer		0.421
DISABLED_HCC161	Disabled, Chronic Ulcer of the Skin, Except Pressure Ulcer		0.337
DISABLED_HCC39	Disabled, Bone/Joint Muscle Infections/Necrosis		0.624
DISABLED_HCC77	Disabled, Multiple Sclerosis		0.344
DISABLED_HCC6	Disabled, Opportunistic Infections		0.914

**NOTES**

1. The relative risk scores in this table were calculated by dividing the parameter estimates by the Part C national average predicted expenditures (CMS Part C Denominator). The Part C Denominator value used is \$8,034.71.

2. The relative factor for HCC 160 is based on pressure ulcer, any stage, for all anatomical sites codes. The relative factor for HCC 160 is also assigned to HCCs 157, 158, and 159 in the constrained regression because the ICD9 codes for the stages of pressure ulcers are not implemented until FY09.

In the “disease interactions,” the variables are defined as follows:

- Artificial Openings for Feeding or Elimination = HCC 188.
- Aspiration and Specified Bacterial Pneumonias = HCC 114.
- Bone/Joint/Muscle Infections/Necrosis = HCC 39.
- Cancer = HCCs 8-12.
- Cardiorespiratory Failure = HCCs 82-84.
- Chronic Obstructive Pulmonary Disease = HCCs 110-111.
- Chronic Ulcer of Skin, except Pressure = HCC 161.
- Congestive Heart Failure = HCC 85.
- Diabetes = HCCs 17, 18, 19.
- Immune Disorders = HCC 47.
- Multiple Sclerosis = HCC 77.
- Opportunistic Infections = HCC 6.
- Pressure Ulcer = HCCs 157-160.
- Renal Disease = HCCs 134-141.
- Schizophrenia = HCC 57.
- Seizure Disorders and Convulsions = HCC 79.
- Sepsis = HCC 2.

SOURCE: RTI International analysis of 2006/2007 Medicare 5% sample.

SOURCE: RTI International analysis of 2006/2007 Medicare 100% institutional sample.

**Table 2. Preliminary CMS-HCC Model Relative Factors for Aged and Disabled New Enrollees**

	<b>Non-Medicaid &amp; Non-Originally Disabled</b>	<b>Medicaid &amp; Non-Originally Disabled</b>	<b>Non-Medicaid &amp; Originally Disabled</b>	<b>Medicaid &amp; Originally Disabled</b>
<b>Female</b>				
0-34 Years	0.453	0.784	-	-
35-44 Years	0.601	0.932	-	-
45-54 Years	0.810	1.141	-	-
55-59 Years	0.977	1.308	-	-
60-64 Years	1.082	1.414	-	-
65 Years	0.501	1.014	1.124	1.637
66 Years	0.543	1.016	1.192	1.665
67 Years	0.579	1.052	1.228	1.702
68 Years	0.598	1.071	1.247	1.721
69 Years	0.624	1.098	1.274	1.747
70-74 Years	0.737	1.233	1.327	1.823
75-79 Years	0.941	1.366	1.503	1.928
80-84 Years	1.116	1.542	1.678	2.104
85-89 Years	1.280	1.706	1.842	2.268
90-94 Years	1.372	1.797	1.934	2.359
95 Years or Over	1.247	1.672	1.809	2.234
<b>Male</b>				
0-34 Years	0.243	0.662	-	-
35-44 Years	0.450	0.869	-	-
45-54 Years	0.633	1.052	-	-
55-59 Years	0.825	1.244	-	-
60-64 Years	0.956	1.375	-	-
65 Years	0.542	1.096	1.109	1.663
66 Years	0.601	1.155	1.122	1.676
67 Years	0.631	1.185	1.152	1.706
68 Years	0.659	1.213	1.181	1.735
69 Years	0.680	1.234	1.202	1.756
70-74 Years	0.818	1.372	1.337	1.890
75-79 Years	1.056	1.569	1.497	2.010
80-84 Years	1.275	1.788	1.717	2.230
85-89 Years	1.446	1.960	1.888	2.401
90-94 Years	1.622	2.135	2.063	2.577
95 Years or Over	1.689	2.202	2.130	2.644

**NOTES:**

1. For payment purposes, a new enrollee is a beneficiary who did not have 12 months of Part B eligibility in the data collection year. The CMS-HCC new enrollee model is not based on diagnosis, but includes factors for different age and gender combinations by Medicaid and the original reason for Medicare entitlement.
2. The relative risk scores in this table were calculated by dividing the parameter estimates by the Part C national average predicted expenditures (CMS Part C Denominator). The Part C Denominator value used is \$8,034.71.

SOURCE: RTI International analysis of 2006/2007 Medicare 5% sample.



**Table 3. Preliminary list of Disease Hierarchies for the Revised CMS-HCC Model****DISEASE HIERARCHIES**

<b>Hierarchical Condition Category (HCC)</b>	<b>If the Disease Group is Listed in this column...</b>	<b>...Then drop the HCC(s) listed in this column</b>
	<b>Hierarchical Condition Category (HCC) LABEL</b>	
8	Metastatic Cancer and Acute Leukemia	9,10,11,12
9	Lung and Other Severe Cancers	10,11,12
10	Lymphoma and Other Cancers	11,12
11	Colorectal, Bladder, and Other Cancers	12
17	Diabetes with Acute Complications	18,19
18	Diabetes with Chronic Complications	19
27	End-Stage Liver Disease	28,29,80
28	Cirrhosis of Liver	29
46	Severe Hematological Disorders	48
51	Dementia With Complications	52
54	Drug/Alcohol Psychosis	55
57	Schizophrenia	58
70	Quadriplegia	71,72,103,104,169
71	Paraplegia	72,104,169
72	Spinal Cord Disorders/Injuries	169
82	Respirator Dependence/Tracheostomy Status	83,84
83	Respiratory Arrest	84
86	Acute Myocardial Infarction	87,88
87	Unstable Angina and Other Acute Ischemic Heart Disease	88
99	Cerebral Hemorrhage	100
103	Hemiplegia/Hemiparesis	104
106	Atherosclerosis of the Extremities with Ulceration or Gangrene	107,108,161,189
107	Vascular Disease with Complications	108
110	Cystic Fibrosis	111,112
111	Chronic Obstructive Pulmonary Disease	112
114	Aspiration and Specified Bacterial Pneumonias	115
134	Dialysis Status	135,136,137,138,139,140,141
135	Acute Renal Failure	136,137,138,139,140,141
136	Chronic Kidney Disease, Stage 5	137,138,139,140,141
137	Chronic Kidney Disease, Severe (Stage 4)	138,139,140,141
138	Chronic Kidney Disease, Moderate (Stage 3)	139,140,141
139	Chronic Kidney Disease, Mild or Unspecified (Stages 1-2 or Unspecified)	140,141
140	Unspecified Renal Failure	141
157	Pressure Ulcer of Skin with Necrosis Through to Muscle, Tendon, or Bone	158,159,160,161
158	Pressure Ulcer of Skin with Full Thickness Skin Loss	159,160,161
159	Pressure Ulcer of Skin with Partial Thickness Skin Loss	160,161
160	Pressure Pre-Ulcer Skin Changes or Unspecified Stage	161
166	Severe Head Injury	80,167

**How Payments are Made with a Disease Hierarchy EXAMPLE:** If a beneficiary triggers HCCs 140 (Unspecified Renal Failure) and 141 (Nephritis), then HCC 141 will be dropped. In other words, payment will always be associated with the HCC in column 1, if a HCC in column 3 also occurs during the same collection period. Therefore, the organization's payment will be based on HCC 140 rather than HCC 141.

**Table 4. Comparison of Current and Revised CMS-HCC Risk Adjustment Model HCCs**

Current Model			Revised Model	
HCC	Description	Category Short Name	HCC	Description
HCC1	HIV/AIDS	Infection	HCC1	HIV/AIDS
HCC2	Septicemia/Shock		HCC2	<i>Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock</i>
HCC5	Opportunistic Infections	Neoplasm	HCC6	Opportunistic Infections
HCC7	Metastatic Cancer and Acute Leukemia		HCC8	Metastatic Cancer and Acute Leukemia
HCC8	Lung, Upper Digestive Tract, and Other Severe Cancers		HCC9	Lung and Other Severe Cancers
HCC9	Lymphatic, Head and Neck, Brain, and Other Major Cancers		HCC10	Lymphoma and Other Cancers
HCC10	Breast, Prostate, Colorectal and Other Cancers and Tumors		HCC11	<b>Colorectal, Bladder, and Other Cancers</b>
			HCC12	Breast, Prostate, and Other Cancers and Tumors
HCC15	Diabetes with Renal or Peripheral Circulatory Manifestation	Diabetes	HCC17	Diabetes with Acute Complications
HCC16	Diabetes with Neurologic or Other Specified Manifestation		HCC18	<i>Diabetes with Chronic Complications</i>
HCC17	Diabetes with Acute Complications		HCC19	Diabetes without Complication
HCC18	Diabetes with Ophthalmologic or Unspecified Manifestation			
HCC19	Diabetes without Complication			
HCC21	Protein-Calorie Malnutrition	Metabolic	HCC21	Protein-Calorie Malnutrition
			HCC22	<b>Morbid Obesity</b>
			HCC23	<b>Other Significant Endocrine and Metabolic Disorders</b>
HCC25	End-Stage Liver Disease	Liver	HCC27	End-Stage Liver Disease
HCC26	Cirrhosis of Liver		HCC28	Cirrhosis of Liver
HCC27	Chronic Hepatitis		HCC29	Chronic Hepatitis
HCC31	Intestinal Obstruction/Perforation	Gastrointestinal	HCC33	Intestinal Obstruction/Perforation
HCC32	Pancreatic Disease		HCC34	<i>Chronic Pancreatitis</i>
HCC33	Inflammatory Bowel Disease		HCC35	Inflammatory Bowel Disease
HCC37	Bone/Joint/Muscle Infections/Necrosis	Musculoskeletal	HCC39	Bone/Joint/Muscle Infections/Necrosis

Current Model			Revised Model	
HCC	Description	Category Short Name	HCC	Description
HCC38	Rheumatoid Arthritis and Inflammatory Connective Tissue Disease	Blood	HCC40	Rheumatoid Arthritis and Inflammatory Connective Tissue Disease
HCC44	Severe Hematological Disorders		HCC46	Severe Hematological Disorders
HCC45	Disorders of Immunity		HCC47	Disorders of Immunity
			<b>HCC48</b>	<b>Coagulation Defects and Other Specified Hematological Disorders</b>
		Cognitive	<b>HCC51</b>	<b>Dementia With Complications</b>
			<b>HCC52</b>	<b>Dementia Without Complication</b>
HCC51	Drug/Alcohol Psychosis	Substance Abuse	HCC54	Drug/Alcohol Psychosis
HCC52	Drug/Alcohol Dependence		HCC55	Drug/Alcohol Dependence
HCC54	Schizophrenia	Psychiatric	HCC57	Schizophrenia
HCC55	Major Depressive, Bipolar, and Paranoid Disorders		HCC58	Major Depressive, Bipolar, and Paranoid Disorders
HCC67	Quadriplegia, Other Extensive Paralysis	Spinal	<i>HCC70</i>	<i>Quadriplegia</i>
HCC68	Paraplegia		HCC71	Paraplegia
HCC69	Spinal Cord Disorders/Injuries		HCC72	Spinal Cord Disorders/Injuries
HCC70	Muscular Dystrophy	Neurological	<b>HCC73</b>	<b>Amyotrophic Lateral Sclerosis and Other Motor Neuron Disease</b>
HCC71	Polyneuropathy		<b>HCC74</b>	<b>Cerebral Palsy</b>
HCC72	Multiple Sclerosis		HCC75	Polyneuropathy
HCC73	Parkinson's and Huntington's Diseases		HCC76	Muscular Dystrophy
HCC74	Seizure Disorders and Convulsions		HCC77	Multiple Sclerosis
HCC75	Coma, Brain Compression/Anoxic Damage		HCC78	Parkinson's and Huntington's Diseases
			HCC79	Seizure Disorders and Convulsions
			HCC80	Coma, Brain Compression/Anoxic Damage
HCC77	Respirator Dependence/Tracheostomy Status	Arrest	HCC82	Respirator Dependence/Tracheostomy Status
HCC78	Respiratory Arrest		HCC83	Respiratory Arrest
HCC79	Cardio-Respiratory Failure and Shock		HCC84	Cardio-Respiratory Failure and Shock
HCC80	Congestive Heart Failure	Heart	HCC85	Congestive Heart Failure
HCC81	Acute Myocardial Infarction		HCC86	Acute Myocardial Infarction
HCC82	Unstable Angina and Other Acute Ischemic Heart Disease		HCC87	Unstable Angina and Other Acute Ischemic Heart Disease

Current Model			Revised Model	
HCC	Description	Category Short Name	HCC	Description
HCC83	Angina Pectoris/Old Myocardial Infarction		<i>HCC88</i>	<i>Angina Pectoris</i>
HCC92	Specified Heart Arrhythmias		HCC96	Specified Heart Arrhythmias
HCC95	Cerebral Hemorrhage	Cerebrovascular Disease	HCC99	Cerebral Hemorrhage
HCC96	Ischemic or Unspecified Stroke		HCC100	Ischemic or Unspecified Stroke
HCC100	Hemiplegia/Hemiparesis		HCC103	Hemiplegia/Hemiparesis
HCC101	Cerebral Palsy and Other Paralytic Syndromes		<i>HCC104</i>	<i>Monoplegia, Other Paralytic Syndromes</i>
HCC104	Vascular Disease with Complications			<b>HCC106</b>
HCC105	Vascular Disease	Vascular	HCC107	Vascular Disease with Complications
			HCC108	Vascular Disease
HCC107	Cystic Fibrosis	Lung	HCC110	Cystic Fibrosis
HCC108	Chronic Obstructive Pulmonary Disease		HCC111	Chronic Obstructive Pulmonary Disease
HCC111	Aspiration and Specified Bacterial Pneumonias		<b>HCC112</b>	<b>Fibrosis of Lung and Other Chronic Lung Disorders</b>
HCC112	Pneumococcal Pneumonia, Empyema, Lung Abscess		HCC114	Aspiration and Specified Bacterial Pneumonias
			HCC115	Pneumococcal Pneumonia, Empyema, Lung Abscess
HCC119	Proliferative Diabetic Retinopathy and Vitreous Hemorrhage	Eye	HCC122	Proliferative Diabetic Retinopathy and Vitreous Hemorrhage
			<b>HCC124</b>	<b>Exudative Macular Degeneration</b>
HCC130	Dialysis Status	Kidney	HCC134	Dialysis Status
HCC131	Renal Failure		<i>HCC135</i>	<i>Acute Renal Failure</i>
HCC132	Nephritis		<i>HCC136</i>	<i>Chronic Kidney Disease, Stage 5</i>
			<i>HCC137</i>	<i>Chronic Kidney Disease, Severe (Stage 4)</i>
			<i>HCC138</i>	<i>Chronic Kidney Disease, Moderate (Stage 3)</i>
			<i>HCC139</i>	<i>Chronic Kidney Disease, Mild or Unspecified (Stages 1-2 or Unspecified)</i>
			<i>HCC140</i>	<i>Unspecified Renal Failure</i>
			HCC141	Nephritis

Current Model			Revised Model	
HCC	Description	Category Short Name	HCC	Description
HCC148	Decubitus Ulcer of Skin	Skin	<b>HCC157</b>	<b>Pressure Ulcer of Skin with Necrosis Through to Muscle, Tendon, or Bone</b>
HCC149	Chronic Ulcer of Skin, Except Decubitus		<b>HCC158</b>	<b>Pressure Ulcer of Skin with Full Thickness Skin Loss</b>
HCC150	Extensive Third-Degree Burns		<b>HCC159</b>	<b>Pressure Ulcer of Skin with Partial Thickness Skin Loss</b>
			HCC160	Pressure Pre-Ulcer Skin Changes or Unspecified Stage
			HCC161	Chronic Ulcer of Skin, Except Pressure
			<i>HCC162</i>	<i>Severe Skin Burn or Condition</i>
HCC154	Severe Head Injury	Injury	HCC166	Severe Head Injury
HCC155	Major Head Injury		HCC167	Major Head Injury
HCC157	Vertebral Fractures w/o Spinal Cord Injury		HCC169	Vertebral Fractures without Spinal Cord Injury
HCC158	Hip Fracture/Dislocation		HCC170	Hip Fracture/Dislocation
HCC161	Traumatic Amputation		<i>HCC173</i>	<i>Traumatic Amputations and Complications</i>
HCC164	Major Complications of Medical Care and Trauma	Complications	<i>HCC176</i>	<i>Complications of Specified Implanted Device or Graft</i>
HCC174	Major Organ Transplant Status	Transplant	HCC186	Major Organ Transplant or Replacement Status
HCC176	Artificial Openings for Feeding or Elimination	Openings	HCC188	Artificial Openings for Feeding or Elimination
HCC177	Amputation Status, Lower Limb/Amputation Complications	Amputation	HCC189	Amputation Status, Lower Limb/Amputation Complications
		<b>Disabled/Disease Interactions</b>		
D-HCC5	Disabled_Opportunistic Infections		D_HCC6	Disabled, Opportunistic Infections
D-HCC44	Disabled_Severe Hematological Disorders		<b>D_HCC34</b>	<b>Disabled, Chronic Pancreatitis</b>
			D_HCC46	Disabled, Severe Hematological Disorders
D-HCC51	Disabled_Drug/Alcohol Psychosis		D_HCC54	Disabled, Drug/Alcohol Psychosis
D-HCC52	Disabled_Drug/Alcohol Dependence		D_HCC55	Disabled, Drug/Alcohol Dependence
D-HCC107	Disabled_Cystic Fibrosis		D_HCC110	Disabled, Cystic Fibrosis

Current Model			Revised Model	
HCC	Description	Category Short Name	HCC	Description
			<b>D_HCC176</b>	<b>Disabled, Complications of Specified Implanted Device or Graft</b>
		<b>DiseaseInteractions</b>		
INT1	DM_CHF		<b>SEPSIS_CARD_RESP_FAIL</b>	<b>Sepsis*Cardiorespiratory Failure</b>
INT2	DM_CVD		<b>CANCER_IMMUNE</b>	<b>Cancer*Immune Disorders</b>
INT3	CHF_COPD		DIABETES_CHF	Diabetes*Congestive Heart Failure
INT4	COPD_CVD_CAD		CHF_COPD	Congestive Heart Failure*Chronic Obstructive Pulmonary Disease
INT5	RF_CHF		CHF_RENAL	Congestive Heart Failure*Renal Disease
INT6	RF_CHF_DM		<b>COPD_CARD_RESP_FAIL</b>	<b>Chronic Obstructive Pulmonary Disease*Cardiorespiratory Failure</b>

**Current Model NOTES:**

Beneficiaries with three-way interaction RF\_CHF\_DM are excluded from the two-way interactions DM\_CHF and RF\_CHF.

DM is diabetes mellitus (HCCs 15-19).

CHF is congestive heart failure (HCC 80).

COPD is chronic obstructive pulmonary disease (HCC 108).

CVD is cerebrovascular disease (HCCs 95-96, 100-101).

CAD is coronary artery disease (HCCs 81-83).

RF is renal failure (HCC 131).

**Revised Model NOTES:**

New HCCs, demographic factors, or interactions (compared to the current model HCCs) are bolded.

Substantially revised HCCs, demographic factors, or interactions (compared to the current model HCCs) are in italics.

In the "disease interactions", the variables are defined as follows:

Sepsis = HCC 2.

Cardiorespiratory Failure = HCCs 82-84.

Cancer = HCCs 8-12.

Immune Disorders = HCC 47.

Diabetes = HCCs 17, 18, 19.

Congestive Heart Failure = HCC 85.

Chronic Obstructive Pulmonary Disease = HCCs 110-111.

Renal Disease = HCCs 134-141.

**Table 5. Preliminary ESRD Continuing Enrollee Dialysis CMS-HCC Model Relative Factors**

<b>Variable</b>	<b>Relative Factors</b>
<b>Female</b>	
0-34 Years	0.622
35-44 Years	0.622
45-54 Years	0.622
55-59 Years	0.629
60-64 Years	0.643
65-69 Years	0.712
70-74 Years	0.729
75-79 Years	0.745
80-84 Years	0.768
85-89 Years	0.774
90-94 Years	0.774
95 Years or Over	0.774
<b>Male</b>	
0-34 Years	0.612
35-44 Years	0.612
45-54 Years	0.612
55-59 Years	0.622
60-64 Years	0.633
65-69 Years	0.686
70-74 Years	0.712
75-79 Years	0.722
80-84 Years	0.764
85-89 Years	0.781
90-94 Years	0.781
95 Years or Over	0.781
<b>Medicaid, Originally Disabled, and Originally ESRD Interactions with Age and Sex</b>	
Medicaid_Female_Aged	0.054
Medicaid_Female_NonAged (Age <65)	0.059
Medicaid_Male_Aged	0.068
Medicaid_Male_NonAged (Age <65)	0.035
Originally Disabled_Female <sup>2</sup>	0.051
Originally Disabled_Male <sup>2</sup>	0.047
Originally ESRD_Female <sup>3</sup>	-0.065
Originally ESRD_Male <sup>3</sup>	-0.047

<b>Disease Coefficients</b>	<b>Description Label</b>	<b>Relative Factors</b>
HCC1	HIV/AIDS	0.178
HCC2	Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock	0.080
HCC6	Opportunistic Infections	0.083
HCC8	Metastatic Cancer and Acute Leukemia	0.261
HCC9	Lung and Other Severe Cancers	0.179
HCC10	Lymphoma and Other Cancers	0.110

<b>Disease Coefficients</b>	<b>Description Label</b>	<b>Relative Factors</b>
HCC11	Colorectal, Bladder, and Other Cancers	0.061
HCC12	Breast, Prostate, and Other Cancers and Tumors	0.032
HCC17	Diabetes with Acute Complications	0.210
HCC18	Diabetes with Chronic Complications	0.090
HCC19	Diabetes without Complication	0.078
HCC21	Protein-Calorie Malnutrition	0.038
HCC22	Morbid Obesity	0.137
HCC23	Other Significant Endocrine and Metabolic Disorders	0.004
HCC27	End-Stage Liver Disease	0.209
HCC28	Cirrhosis of Liver	0.089
HCC29	Chronic Hepatitis	0.055
HCC33	Intestinal Obstruction/Perforation	0.060
HCC34	Chronic Pancreatitis	0.040
HCC35	Inflammatory Bowel Disease	0.058
HCC39	Bone/Joint/Muscle Infections/Necrosis	0.070
HCC40	Rheumatoid Arthritis and Inflammatory Connective Tissue Disease	0.078
HCC46	Severe Hematological Disorders	0.154
HCC47	Disorders of Immunity	0.033
HCC48	Coagulation Defects and Other Specified Hematological Disorders	0.079
HCC51	Dementia With Complications	0.132
HCC52	Dementia Without Complication	0.062
HCC54	Drug/Alcohol Psychosis	0.000
HCC55	Drug/Alcohol Dependence	0.000
HCC57	Schizophrenia	0.142
HCC58	Major Depressive, Bipolar, and Paranoid Disorders	0.088
HCC70	Quadriplegia	0.214
HCC71	Paraplegia	0.214
HCC72	Spinal Cord Disorders/Injuries	0.109
HCC73	Amyotrophic Lateral Sclerosis and Other Motor Neuron Disease	0.000
HCC74	Cerebral Palsy	0.071
HCC75	Polyneuropathy	0.058
HCC76	Muscular Dystrophy	0.000
HCC77	Multiple Sclerosis	0.071
HCC78	Parkinson's and Huntington's Diseases	0.057
HCC79	Seizure Disorders and Convulsions	0.072
HCC80	Coma, Brain Compression/Anoxic Damage	0.123
HCC82	Respirator Dependence/Tracheostomy Status	0.307
HCC83	Respiratory Arrest	0.118
HCC84	Cardio-Respiratory Failure and Shock	0.064
HCC85	Congestive Heart Failure	0.075
HCC86	Acute Myocardial Infarction	0.095
HCC87	Unstable Angina and Other Acute Ischemic Heart Disease	0.095
HCC88	Angina Pectoris	0.045
HCC96	Specified Heart Arrhythmias	0.073
HCC99	Cerebral Hemorrhage	0.080
HCC100	Ischemic or Unspecified Stroke	0.080
HCC103	Hemiplegia/Hemiparesis	0.079
HCC104	Monoplegia, Other Paralytic Syndromes	0.079
HCC106	Atherosclerosis of the Extremities with Ulceration or Gangrene	0.290
HCC107	Vascular Disease with Complications	0.087



<b>Disease Coefficients</b>	<b>Description Label</b>	<b>Relative Factors</b>
HCC108	Vascular Disease	0.053
HCC110	Cystic Fibrosis	0.068
HCC111	Chronic Obstructive Pulmonary Disease	0.068
HCC112	Fibrosis of Lung and Other Chronic Lung Disorders	0.056
HCC114	Aspiration and Specified Bacterial Pneumonias	0.084
HCC115	Pneumococcal Pneumonia, Empyema, Lung Abscess	0.015
HCC122	Proliferative Diabetic Retinopathy and Vitreous Hemorrhage	0.000
HCC124	Exudative Macular Degeneration	0.000
HCC157	Pressure Ulcer of Skin with Necrosis Through to Muscle, Tendon, or Bone	0.177
HCC158	Pressure Ulcer of Skin with Full Thickness Skin Loss	0.177
HCC159	Pressure Ulcer of Skin with Partial Thickness Skin Loss	0.177
HCC160	Pressure Pre-Ulcer Skin Changes or Unspecified Stage	0.177
HCC161	Chronic Ulcer of Skin, Except Pressure	0.123
HCC162	Severe Skin Burn or Condition	0.049
HCC166	Severe Head Injury	0.123
HCC167	Major Head Injury	0.020
HCC169	Vertebral Fractures without Spinal Cord Injury	0.052
HCC170	Hip Fracture/Dislocation	0.042
HCC173	Traumatic Amputations and Complications	0.042
HCC176	Complications of Specified Implanted Device or Graft	0.000
HCC186	Major Organ Transplant or Replacement Status	0.165
HCC188	Artificial Openings for Feeding or Elimination	0.049
HCC189	Amputation Status, Lower Limb/Amputation Complications	0.119
<b>Disease Interactions</b>		0.000
SEPSIS_CARD_RESP_FAIL	Sepsis*Cardiorespiratory Failure	0.104
CANCER_IMMUNE	Cancer*Immune Disorders	0.097
DIABETES_CHF	Diabetes*Congestive Heart Failure	0.021
CHF_COPD	Congestive Heart Failure*Chronic Obstructive Pulmonary Disease	0.018
COPD_CARD_RESP_FAIL	Chronic Obstructive Pulmonary Disease*Cardiorespiratory Failure	0.013
<b>NonAged (Age &lt;65)/Disease Interactions</b>		0.000
NONAGED_HCC6	NonAged, Opportunistic Infections	0.076
NONAGED_HCC34	NonAged, Chronic Pancreatitis	0.120
NONAGED_HCC46	NonAged, Severe Hematological Disorders	0.039
NONAGED_HCC54	NonAged, Drug/Alcohol Psychosis	0.172
NONAGED_HCC55	NonAged, Drug/Alcohol Dependence	0.172
NONAGED_HCC110	NonAged, Cystic Fibrosis	0.384
NONAGED_HCC176	NonAged, Complications of Specified Implanted Device or Graft	0.048

**NOTES:**

<sup>1</sup> The relative risk factors in this table were calculated by dividing the parameter estimates by the national average predicted expenditures (CMS Dialysis Denominator). The Dialysis Denominator value used was \$72,735.37 based on July 2009 continuing enrollee and new enrollee dialysis status beneficiaries with dialysis MSP adjustments included.

<sup>2</sup> Originally Disabled indicates beneficiary originally entered Medicare due to a condition other than ESRD.

<sup>3</sup> Originally ESRD indicates beneficiary originally entered Medicare due to ESRD. Beneficiaries that are Originally ESRD cannot be Originally Disabled.

The estimate for HCC 160 is based on pressure ulcer, any stage, for all anatomical sites codes. The estimated coefficient for HCC 160 is also assigned to HCCs 157, 158, and 159 in the constrained regression because the ICD9 codes for the stages of pressure ulcers are not implemented until FY09.

In the “disease interactions,” the variables are defined as follows:

Sepsis = HCC 2.

Cardiorespiratory Failure = HCCs 82-84.

Cancer = HCCs 8-12.

Immune Disorders = HCC 47.

Diabetes = HCCs 17, 18, 19.

Congestive Heart Failure = HCC 85.

Chronic Obstructive Pulmonary Disease = HCCs 110-111.

SOURCE: RTI International analysis of 2006/2007 Medicare 100% ESRD sample claims and enrollment data.

**Table 6. Preliminary ESRD Demographic CMS-HCC Model Relative Factors for New Enrollees in Dialysis Status**

	Non-Medicaid & Non-Originally Disabled	Medicaid & Non- Originally Disabled	Non-Medicaid & Originally Disabled	Medicaid & Originally Disabled
<b>Female</b>				
0-34 Years	0.881	1.004	1.117	1.240
35-44 Years	0.881	1.004	1.117	1.240
45-54 Years	0.881	1.004	1.117	1.240
55-59 Years	0.917	1.040	1.153	1.275
60-64 Years	0.937	1.059	1.172	1.295
65-69 Years	1.060	1.164	1.296	1.399
70-74 Years	1.107	1.210	1.342	1.446
75-79 Years	1.167	1.270	1.402	1.506
80-84 Years	1.172	1.275	1.407	1.510
85 Years or Over	1.186	1.290	1.422	1.525
<b>Male</b>				
0-34 Years	0.764	0.875	0.995	1.106
35-44 Years	0.805	0.917	1.036	1.148
45-54 Years	0.843	0.954	1.074	1.186
55-59 Years	0.876	0.988	1.107	1.219
60-64 Years	0.901	1.013	1.132	1.244
65-69 Years	1.012	1.131	1.243	1.362
70-74 Years	1.071	1.189	1.302	1.420
75-79 Years	1.114	1.232	1.345	1.464
80-84 Years	1.148	1.266	1.379	1.497
85 Years or Over	1.163	1.282	1.394	1.513

**NOTES:**

1. The relative risk factors in this table were calculated by dividing the parameter estimates by the national average predicted expenditures (CMS Dialysis Denominator). The Dialysis Denominator value used was \$72,735.37 based on July 2009 continuing enrollee and new enrollee dialysis status beneficiaries with dialysis MSP adjustments included.

2. Originally disabled terms refer to people originally entitled to Medicare for reasons of disability other than ESRD.

SOURCE: RTI International analysis of 2006/2007 Medicare 100% ESRD sample claims and enrollment data.

**Table 7. Preliminary ESRD Kidney Transplant CMS-HCC Model Relative Factors for Transplant Beneficiaries**

	Beneficiaries	Kidney Transplant <i>Actual Dollars</i>	Kidney Transplant <b>Relative Risk Factor</b>
Month 1	8,412	36,618.30	6.041
Months 2 and 3		5,540.51	0.914
<b>Total (Actual Months 1-3)</b>		<b>47,569.19</b>	

**NOTES:**

1. Kidney transplant is identified by DRG 302 for discharge dates through September 30, 2007 and by MS-DRG 652 for discharge dates from October 1, 2007 on.
2. The transplant month payments were computed by aggregating the costs for each of the three monthly payments.
3. The transplant factor is calculated in this manner: (kidney transplant month's dollars/Dialysis Denominator)\*12. The Dialysis Denominator value used was \$72,735.37 based on July 2009 continuing enrollee and new enrollee dialysis status beneficiaries with dialysis MSP adjustments included.

SOURCE: RTI International analysis of 2006/2007 Medicare 100% ESRD sample claims and enrollment data.

**Table 8. Preliminary ESRD Functioning Graft CMS-HCC Model Relative Factors for Community Population**

Variable	Relative Factor
<b>Functioning Graft Factors</b>	
Aged 65+, with duration since transplant of 4-9 months	2.596
Aged <65, with duration since transplant of 4-9 months	2.435
Aged 65+, with duration since transplant of 10 months or more	1.284
Aged <65, with duration since transplant of 10 months or more	1.169
<b>Female</b>	
0-34 Years	0.198
35-44 Years	0.212
45-54 Years	0.274
55-59 Years	0.359
60-64 Years	0.416
65-69 Years	0.283
70-74 Years	0.346
75-79 Years	0.428
80-84 Years	0.517
85-89 Years	0.632
90-94 Years	0.755
95 Years or Over	0.775
<b>Male</b>	
0-34 Years	0.079
35-44 Years	0.119
45-54 Years	0.165
55-59 Years	0.292
60-64 Years	0.332
65-69 Years	0.309
70-74 Years	0.378

<b>Variable</b>	<b>Relative Factor</b>
75-79 Years	0.464
80-84 Years	0.565
85-89 Years	0.647
90-94 Years	0.776
95 Years or Over	0.963
<b>Medicaid and Originally Disabled Interactions with Age and Sex</b>	
Medicaid_Female_Aged	0.213
Medicaid_Female_NonAged (Age <65)	0.104
Medicaid_Male_Aged	0.210
Medicaid_Male_NonAged (Age <65)	0.113
Originally Disabled_Female_Age ≥65	0.244
Originally Disabled_Male_Age ≥65	0.171

<b>Disease Coefficients</b>	<b>Description Label</b>	<b>Relative Factor</b>
HCC1	HIV/AIDS	0.492
HCC2	Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock	0.520
HCC6	Opportunistic Infections	0.557
HCC8	Metastatic Cancer and Acute Leukemia	2.425
HCC9	Lung and Other Severe Cancers	1.006
HCC10	Lymphoma and Other Cancers	0.695
HCC11	Colorectal, Bladder, and Other Cancers	0.330
HCC12	Breast, Prostate, and Other Cancers and Tumors	0.180
HCC17	Diabetes with Acute Complications	0.344
HCC18	Diabetes with Chronic Complications	0.344
HCC19	Diabetes without Complication	0.124
HCC21	Protein-Calorie Malnutrition	0.653
HCC22	Morbid Obesity	0.342
HCC23	Other Significant Endocrine and Metabolic Disorders	0.240
HCC27	End-Stage Liver Disease	1.003
HCC28	Cirrhosis of Liver	0.425
HCC29	Chronic Hepatitis	0.313
HCC33	Intestinal Obstruction/Perforation	0.337
HCC34	Chronic Pancreatitis	0.257
HCC35	Inflammatory Bowel Disease	0.279
HCC39	Bone/Joint/Muscle Infections/Necrosis	0.423
HCC40	Rheumatoid Arthritis and Inflammatory Connective Tissue Disease	0.376
HCC46	Severe Hematological Disorders	1.078
HCC47	Disorders of Immunity	0.306
HCC48	Coagulation Defects and Other Specified Hematological Disorders	0.258
HCC51	Dementia With Complications	0.616
HCC52	Dementia Without Complication	0.343
HCC54	Drug/Alcohol Psychosis	0.358
HCC55	Drug/Alcohol Dependence	0.358
HCC57	Schizophrenia	0.471
HCC58	Major Depressive, Bipolar, and Paranoid Disorders	0.318
HCC70	Quadriplegia	1.075
HCC71	Paraplegia	0.868
HCC72	Spinal Cord Disorders/Injuries	0.441

<b>Disease Coefficients</b>	<b>Description Label</b>	<b>Relative Factor</b>
HCC73	Amyotrophic Lateral Sclerosis and Other Motor Neuron Disease	1.016
HCC74	Cerebral Palsy	0.036
HCC75	Polyneuropathy	0.281
HCC76	Muscular Dystrophy	0.460
HCC77	Multiple Sclerosis	0.482
HCC78	Parkinson's and Huntington's Diseases	0.555
HCC79	Seizure Disorders and Convulsions	0.252
HCC80	Coma, Brain Compression/Anoxic Damage	0.533
HCC82	Respirator Dependence/Tracheostomy Status	1.732
HCC83	Respiratory Arrest	0.769
HCC84	Cardio-Respiratory Failure and Shock	0.326
HCC85	Congestive Heart Failure	0.361
HCC86	Acute Myocardial Infarction	0.283
HCC87	Unstable Angina and Other Acute Ischemic Heart Disease	0.283
HCC88	Angina Pectoris	0.210
HCC96	Specified Heart Arrhythmias	0.276
HCC99	Cerebral Hemorrhage	0.371
HCC100	Ischemic or Unspecified Stroke	0.333
HCC103	Hemiplegia/Hemiparesis	0.481
HCC104	Monoplegia, Other Paralytic Syndromes	0.212
HCC106	Atherosclerosis of the Extremities with Ulceration or Gangrene	1.313
HCC107	Vascular Disease with Complications	0.417
HCC108	Vascular Disease	0.288
HCC110	Cystic Fibrosis	0.388
HCC111	Chronic Obstructive Pulmonary Disease	0.388
HCC112	Fibrosis of Lung and Other Chronic Lung Disorders	0.294
HCC114	Aspiration and Specified Bacterial Pneumonias	0.691
HCC115	Pneumococcal Pneumonia, Empyema, Lung Abscess	0.212
HCC122	Proliferative Diabetic Retinopathy and Vitreous Hemorrhage	0.223
HCC124	Exudative Macular Degeneration	0.248
HCC134	Dialysis Status	0.000
HCC135	Acute Renal Failure	0.617
HCC136	Chronic Kidney Disease, Stage 5	0.227
HCC137	Chronic Kidney Disease, Severe (Stage 4)	0.227
HCC138	Chronic Kidney Disease, Moderate (Stage 3)	0.227
HCC139	Chronic Kidney Disease, Mild or Unspecified (Stages 1-2 or Unspecified)	0.227
HCC140	Unspecified Renal Failure	0.227
HCC141	Nephritis	0.075
HCC157	Pressure Ulcer of Skin with Necrosis Through to Muscle, Tendon, or Bone	1.071
HCC158	Pressure Ulcer of Skin with Full Thickness Skin Loss	1.071
HCC159	Pressure Ulcer of Skin with Partial Thickness Skin Loss	1.071
HCC160	Pressure Pre-Ulcer Skin Changes or Unspecified Stage	1.071
HCC161	Chronic Ulcer of Skin, Except Pressure	0.473
HCC162	Severe Skin Burn or Condition	0.458
HCC166	Severe Head Injury	0.533
HCC167	Major Head Injury	0.141
HCC169	Vertebral Fractures without Spinal Cord Injury	0.441
HCC170	Hip Fracture/Dislocation	0.363
HCC173	Traumatic Amputations and Complications	0.379
HCC176	Complications of Specified Implanted Device or Graft	0.555

Disease Coefficients	Description Label	Relative Factor
HCC186	Major Organ Transplant or Replacement Status	0.000
HCC188	Artificial Openings for Feeding or Elimination	0.609
HCC189	Amputation Status, Lower Limb/Amputation Complications	0.804
<b>Disease Interactions</b>		
SEPSIS_CARD_RESP_FAIL	Sepsis*Cardiorespiratory Failure	0.634
CANCER_IMMUNE	Cancer*Immune Disorders	1.101
DIABETES_CHF	Diabetes*Congestive Heart Failure	0.237
CHF_COPD	Congestive Heart Failure*Chronic Obstructive Pulmonary Disease	0.255
CHF_RENAL	Congestive Heart Failure*Renal Disease	0.201
COPD_CARD_RESP_FAIL	Chronic Obstructive Pulmonary Disease*Cardiorespiratory Failure	0.420
<b>NonAged (Age &lt;65)/Disease Interactions</b>		
NONAGED_HCC6	NonAged, Opportunistic Infections	0.564
NONAGED_HCC34	NonAged, Chronic Pancreatitis	0.757
NONAGED_HCC46	NonAged, Severe Hematological Disorders	0.818
NONAGED_HCC54	NonAged, Drug/Alcohol Psychosis	0.432
NONAGED_HCC55	NonAged, Drug/Alcohol Dependence	0.147
NONAGED_HCC110	NonAged, Cystic Fibrosis	2.397
NONAGED_HCC176	NonAged, Complications of Specified Implanted Device or Graft	0.495

**NOTES:**

1. All coefficients for demographic factors and HCCs were constrained to their values in the 2006-2007 Aged-Disabled Community model except for the coefficients for HCC134 and HCC186. These coefficients are constrained to 0 because this is a population defined by having had a major organ transplant and not being in dialysis status.
2. The coefficients estimated for this model are the Functioning Graft add-on factors for being in a month after the 3 months accounted for in the Transplant segment of the ESRD system. Early months post-transplant incur higher Medicare spending than later months. The model differentiates the six months, months 4-9, from months further from the transplant period.
3. Originally disabled terms refer to people originally entitled to Medicare for reasons of disability other than ESRD.
4. The relative risk scores in this table were calculated by dividing the parameter estimates by the national average predicted expenditures (CMS Part C Denominator). The Part C Denominator value used was \$8,034.71.

The estimate for HCC 160 is based on *pressure ulcer, any stage, for all anatomical sites* codes. The estimated coefficient for HCC 160 is also assigned to HCCs 157, 158, and 159 in the constrained regression because the ICD9 codes for the stages of pressure ulcers are not implemented until FY09.

In the “disease interactions,” the variables are defined as follows:

- Sepsis = HCC 2.
- Cardiorespiratory Failure = HCCs 82-84.
- Cancer = HCCs 8-12.
- Immune Disorders = HCC 47.
- Diabetes = HCCs 17, 18, 19.
- Congestive Heart Failure = HCC 85.
- Chronic Obstructive Pulmonary Disease = HCCs 110-111.
- Renal Disease = HCCs 134-141.

SOURCE: RTI International analysis of 2006/2007 100% ESRD sample claims and enrollment data and 2006/2007 Medicare 5% sample.

**Table 9. Preliminary ESRD Functioning Graft CMS-HCC Model Relative Factors for Institutionalized Population**

<b>Variable</b>	<b>Relative Factor</b>
<b>Functioning Graft Factors</b>	
Aged 65+, with duration since transplant of 4-9 months	2.596
Aged <65, with duration since transplant of 4-9 months	2.435
Aged 65+, with duration since transplant of 10 months or more	1.284
Aged <65, with duration since transplant of 10 months or more	1.169
<b>Female</b>	
0-34 Years	0.783
35-44 Years	0.723
45-54 Years	0.700
55-59 Years	0.805
60-64 Years	0.773
65-69 Years	1.004
70-74 Years	0.947
75-79 Years	0.874
80-84 Years	0.792
85-89 Years	0.699
90-94 Years	0.594
95 Years or Over	0.465
<b>Male</b>	
0-34 Years	0.994
35-44 Years	0.658
45-54 Years	0.687
55-59 Years	0.814
60-64 Years	0.877
65-69 Years	1.148
70-74 Years	1.195
75-79 Years	1.168
80-84 Years	1.104
85-89 Years	1.046
90-94 Years	0.928
95 Years or Over	0.842
<b>Medicaid and Originally Disabled</b>	
Medicaid	0.126
Originally Disabled_Age ≥65	0.026

<b>Disease Coefficients</b>	<b>Description Label</b>	
HCC1	HIV/AIDS	1.374
HCC2	Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock	0.471
HCC6	Opportunistic Infections	0.541
HCC8	Metastatic Cancer and Acute Leukemia	0.928
HCC9	Lung and Other Severe Cancers	0.610
HCC10	Lymphoma and Other Cancers	0.363
HCC11	Colorectal, Bladder, and Other Cancers	0.255

<b>Disease Coefficients</b>	<b>Description Label</b>	
HCC12	Breast, Prostate, and Other Cancers and Tumors	0.165
HCC17	Diabetes with Acute Complications	0.434
HCC18	Diabetes with Chronic Complications	0.434
HCC19	Diabetes without Complication	0.187
HCC21	Protein-Calorie Malnutrition	0.343
HCC22	Morbid Obesity	0.353
HCC23	Other Significant Endocrine and Metabolic Disorders	0.248
HCC27	End-Stage Liver Disease	0.637
HCC28	Cirrhosis of Liver	0.343
HCC29	Chronic Hepatitis	0.343
HCC33	Intestinal Obstruction/Perforation	0.302
HCC34	Chronic Pancreatitis	0.175
HCC35	Inflammatory Bowel Disease	0.250
HCC39	Bone/Joint/Muscle Infections/Necrosis	0.386
HCC40	Rheumatoid Arthritis and Inflammatory Connective Tissue Disease	0.222
HCC46	Severe Hematological Disorders	0.638
HCC47	Disorders of Immunity	0.436
HCC48	Coagulation Defects and Other Specified Hematological Disorders	0.197
HCC51	Dementia With Complications	0.000
HCC52	Dementia Without Complication	0.000
HCC54	Drug/Alcohol Psychosis	0.051
HCC55	Drug/Alcohol Dependence	0.051
HCC57	Schizophrenia	0.274
HCC58	Major Depressive, Bipolar, and Paranoid Disorders	0.274
HCC70	Quadriplegia	0.497
HCC71	Paraplegia	0.497
HCC72	Spinal Cord Disorders/Injuries	0.191
HCC73	Amyotrophic Lateral Sclerosis and Other Motor Neuron Disease	0.294
HCC74	Cerebral Palsy	0.000
HCC75	Polyneuropathy	0.256
HCC76	Muscular Dystrophy	0.247
HCC77	Multiple Sclerosis	0.000
HCC78	Parkinson's and Huntington's Diseases	0.110
HCC79	Seizure Disorders and Convulsions	0.173
HCC80	Coma, Brain Compression/Anoxic Damage	0.103
HCC82	Respirator Dependence/Tracheostomy Status	1.567
HCC83	Respiratory Arrest	0.611
HCC84	Cardio-Respiratory Failure and Shock	0.346
HCC85	Congestive Heart Failure	0.226
HCC86	Acute Myocardial Infarction	0.394
HCC87	Unstable Angina and Other Acute Ischemic Heart Disease	0.394
HCC88	Angina Pectoris	0.366
HCC96	Specified Heart Arrhythmias	0.227
HCC99	Cerebral Hemorrhage	0.175
HCC100	Ischemic or Unspecified Stroke	0.175
HCC103	Hemiplegia/Hemiparesis	0.063
HCC104	Monoplegia, Other Paralytic Syndromes	0.063
HCC106	Atherosclerosis of the Extremities with Ulceration or Gangrene	0.773
HCC107	Vascular Disease with Complications	0.257
HCC108	Vascular Disease	0.146
HCC110	Cystic Fibrosis	0.323



<b>Disease Coefficients</b>	<b>Description Label</b>	
HCC111	Chronic Obstructive Pulmonary Disease	0.323
HCC112	Fibrosis of Lung and Other Chronic Lung Disorders	0.252
HCC114	Aspiration and Specified Bacterial Pneumonias	0.239
HCC115	Pneumococcal Pneumonia, Empyema, Lung Abscess	0.194
HCC122	Proliferative Diabetic Retinopathy and Vitreous Hemorrhage	0.366
HCC124	Exudative Macular Degeneration	0.178
HCC134	Dialysis Status	0.000
HCC135	Acute Renal Failure	0.538
HCC136	Chronic Kidney Disease, Stage 5	0.304
HCC137	Chronic Kidney Disease, Severe (Stage 4)	0.304
HCC138	Chronic Kidney Disease, Moderate (Stage 3)	0.304
HCC139	Chronic Kidney Disease, Mild or Unspecified (Stages 1-2 or Unspecified)	0.304
HCC140	Unspecified Renal Failure	0.304
HCC141	Nephritis	0.235
HCC157	Pressure Ulcer of Skin with Necrosis Through to Muscle, Tendon, or Bone	0.284
HCC158	Pressure Ulcer of Skin with Full Thickness Skin Loss	0.284
HCC159	Pressure Ulcer of Skin with Partial Thickness Skin Loss	0.284
HCC160	Pressure Pre-Ulcer Skin Changes or Unspecified Stage	0.284
HCC161	Chronic Ulcer of Skin, Except Pressure	0.226
HCC162	Severe Skin Burn or Condition	0.000
HCC166	Severe Head Injury	0.103
HCC167	Major Head Injury	0.000
HCC169	Vertebral Fractures without Spinal Cord Injury	0.179
HCC170	Hip Fracture/Dislocation	0.000
HCC173	Traumatic Amputations and Complications	0.067
HCC176	Complications of Specified Implanted Device or Graft	0.369
HCC186	Major Organ Transplant or Replacement Status	0.000
HCC188	Artificial Openings for Feeding or Elimination	0.658
HCC189	Amputation Status, Lower Limb/Amputation Complications	0.384
<b>Disease Interactions</b>		
CHF_COPD	Congestive Heart Failure*Chronic Obstructive Pulmonary Disease	0.159
CRFAIL_COPD	Cardiorespiratory Failure*Chronic Obstructive Pulmonary Disease	0.524
SEPSIS_PRESSURE_ULCER	Sepsis*Pressure Ulcer	0.538
SEPSIS_ARTIF_OPENINGS	Sepsis*Artificial Openings for Feeding or Elimination	0.453
ARTIF_OPENINGS_PRESSURE_ULCER	Artificial Openings for Feeding or Elimination*Pressure Ulcer	0.361
DIABETES_CHF	Diabetes*Congestive Heart Failure	0.143
COPD_ASP_SPEC_BACT_PNEUM	Chronic Obstructive Pulmonary Disease*Aspiration and Specified Bacterial Pneumonias	0.249
ASP_SPEC_BACT_PNEUM_PRES_ULCER	Aspiration and Specified Bacterial Pneumonias*Pressure Ulcer	0.325
SEPSIS_ASP_SPEC_BACT_PNEUM	Sepsis*Aspiration and Specified Bacterial Pneumonias	0.387
SCHIZOPHRENIA_COPD	Schizophrenia*Chronic Obstructive Pulmonary Disease	0.187
SCHIZOPHRENIA_CHF	Schizophrenia*Congestive Heart Failure	0.220
SCHIZOPHRENIA_SEIZURES	Schizophrenia*Seizure Disorders and Convulsions	0.303
<b>NonAged (Age &lt;65)/Disease Interactions</b>		

Disease Coefficients	Description Label	
NONAGED_HCC85	NonAged, Congestive Heart Failure	0.320
NONAGED_PRESSURE_ULCER	NonAged, Pressure Ulcer	0.421
NONAGED_HCC161	NonAged, Chronic Ulcer of the Skin, Except Pressure Ulcer	0.337
NONAGED_HCC39	NonAged, Bone/Joint Muscle Infections/Necrosis	0.624
NONAGED_HCC77	NonAged, Multiple Sclerosis	0.344
NONAGED_HCC6	NonAged, Opportunistic Infections	0.914

**NOTES:**

1. All coefficients for demographic factors and HCCs were constrained to their values in the 2006-2007 Aged-Disabled Institutional model except for the coefficients for HCC134 and HCC186. These coefficients are constrained to 0 because this is a population defined by having had a major organ transplant and not being in dialysis status.
2. The coefficients estimated for this model are the Functioning Graft add-on factors for being in a month after the 3 months accounted for in the Transplant segment of the ESRD system. Early months post-transplant incur higher Medicare spending than later months. The model differentiates the six months, months 4-9, from months further from the transplant period.
3. Originally disabled term refers to people originally entitled to Medicare for reasons of disability other than ESRD.
4. The relative risk scores in this table were calculated by dividing the parameter estimates by the national average predicted expenditures (CMS Part C Denominator). The Part C Denominator value used was \$8,034.71.

The estimate for HCC 160 is based on *pressure ulcer, any stage, for all anatomical sites* codes. The estimated coefficient for HCC 160 is also assigned to HCCs 157, 158, and 159 in the constrained regression because the ICD9 codes for the stages of pressure ulcers are not implemented until FY09.

In the “Disease interactions” and “NonAged interactions,” the variables are defined as follows:

- Sepsis = HCC 2.
- Cardiorespiratory Failure = HCCs 82-84.
- Diabetes = HCCs 17, 18, 19.
- Congestive Heart Failure = HCC 85.
- Chronic Obstructive Pulmonary Disease = HCCs 110-111.
- Pressure Ulcer = HCCs 157-160.
- Artificial Openings for Feeding or Elimination = HCC 188.
- Aspiration and Specified Bacterial Pneumonias = HCC 114.
- Schizophrenia = HCC 57.
- Seizure Disorders and Convulsions = HCC 79.
- Chronic Ulcer of Skin, except Pressure = HCC 161.
- Bone/Joint/Muscle Infections/Necrosis = HCC 39.
- Multiple Sclerosis = HCC 77.
- Opportunistic Infections = HCC 6.

SOURCE: RTI International analysis of 2006/2007 100% ESRD sample claims and enrollment data and 2006/2007 Medicare 100% institutional sample.

**Table 10. Preliminary ESRD Demographic CMS-HCC Model Relative Factors for Functioning Graft New Enrollees Duration Since Transplant of 4-9 Months**

(Table entries are annualized expenditures.)

	<b>Non-Medicaid &amp; Non-Originally Disabled</b>	<b>Medicaid &amp; Non-Originally Disabled</b>	<b>Non-Medicaid &amp; Originally Disabled</b>	<b>Medicaid &amp; Originally Disabled</b>
<b>Female</b>				
0-34 Years	2.886	3.216	—	—
35-44 Years	3.033	3.362	—	—
45-54 Years	3.241	3.570	—	—
55-59 Years	3.407	3.736	—	—
60-64 Years	3.512	3.841	—	—
65 Years	3.095	3.606	3.714	4.225
66 Years	3.136	3.607	3.782	4.253
67 Years	3.172	3.643	3.818	4.289
68 Years	3.191	3.662	3.837	4.308
69 Years	3.218	3.689	3.864	4.335
70-74 Years	3.330	3.824	3.916	4.410
75-79 Years	3.533	3.956	4.092	4.515
80-84 Years	3.707	4.130	4.266	4.690
85-89 Years	3.870	4.293	4.429	4.853
90-94 Years	3.961	4.385	4.521	4.944
95 Years or Over	3.837	4.260	4.396	4.819
<b>Male</b>				
0-34 Years	2.677	3.094	—	—
35-44 Years	2.883	3.299	—	—
45-54 Years	3.065	3.481	—	—
55-59 Years	3.256	3.673	—	—
60-64 Years	3.386	3.803	—	—
65 Years	3.136	3.687	3.700	4.251
66 Years	3.194	3.745	3.713	4.264
67 Years	3.224	3.775	3.743	4.294
68 Years	3.252	3.804	3.771	4.322
69 Years	3.273	3.824	3.792	4.343
70-74 Years	3.411	3.961	3.927	4.477
75-79 Years	3.647	4.157	4.086	4.596
80-84 Years	3.865	4.376	4.304	4.815
85-89 Years	4.035	4.546	4.475	4.985
90-94 Years	4.210	4.721	4.649	5.160
95 Years or Over	4.277	4.788	4.716	5.227

**NOTES:**

1. The table entries are derived from the Graft New Enrollee model. In that model, the functioning graft add-ons are carried forward from the Community Graft model and all demographic variables are carried forward from the CMS-HCC New Enrollee model.

2. Originally Disabled terms refer to people originally entitled to Medicare for reasons of disability other than ESRD. In this model, Originally Disabled is defined only for beneficiaries age 65 and greater.

SOURCE: RTI International analysis of 2006/2007 100% ESRD sample claims and enrollment data and 2006/2007 Medicare 5% sample.

**Table 11. Preliminary ESRD Demographic CMS-HCC Model Relative Factors for Functioning Graft New Enrollees Duration Since Transplant of 10 Months or More**

(Table entries are annualized expenditures.)

	<b>Non-Medicaid &amp; Non-Originally Disabled</b>	<b>Medicaid &amp; Non-Originally Disabled</b>	<b>Non-Medicaid &amp; Originally Disabled</b>	<b>Medicaid &amp; Originally Disabled</b>
<b>Female</b>				
0-34 Years	1.620	1.950	—	—
35-44 Years	1.767	2.097	—	—
45-54 Years	1.975	2.305	—	—
55-59 Years	2.141	2.471	—	—
60-64 Years	2.246	2.576	—	—
65 Years	1.782	2.293	2.402	2.912
66 Years	1.824	2.295	2.470	2.941
67 Years	1.860	2.331	2.506	2.977
68 Years	1.879	2.350	2.525	2.996
69 Years	1.905	2.376	2.551	3.022
70-74 Years	2.017	2.511	2.604	3.098
75-79 Years	2.220	2.643	2.779	3.202
80-84 Years	2.394	2.818	2.954	3.377
85-89 Years	2.557	2.981	3.117	3.540
90-94 Years	2.649	3.072	3.208	3.631
95 Years or Over	2.524	2.947	3.083	3.507
<b>Male</b>				
0-34 Years	1.411	1.828	—	—
35-44 Years	1.617	2.034	—	—
45-54 Years	1.799	2.216	—	—
55-59 Years	1.990	2.407	—	—
60-64 Years	2.121	2.537	—	—
65 Years	1.823	2.375	2.387	2.938
66 Years	1.881	2.432	2.400	2.951
67 Years	1.911	2.463	2.430	2.981
68 Years	1.940	2.491	2.458	3.010
69 Years	1.961	2.512	2.479	3.031
70-74 Years	2.098	2.649	2.614	3.165
75-79 Years	2.334	2.845	2.773	3.284
80-84 Years	2.553	3.063	2.992	3.502
85-89 Years	2.723	3.233	3.162	3.673
90-94 Years	2.898	3.408	3.337	3.847
95 Years or Over	2.964	3.475	3.403	3.914

**NOTES:**

1. The table entries are derived from the Graft New Enrollee model. In that model, the functioning graft add-ons are carried forward from the Community Graft model and all demographic variables are carried forward from the CMS-HCC New Enrollee model.

2. Originally Disabled terms refer to people originally entitled to Medicare for reasons of disability other than ESRD. In this model, Originally Disabled is defined only for beneficiaries age 65 and greater.

SOURCE: RTI International analysis of 2006/2007 100% ESRD sample claims and enrollment data and 2006/2007 Medicare 5% sample.

**Table 12. Preliminary CMS RxHCC Model Relative Factors for Continuing Enrollees**

<b>Continuing Enrollee (CE) RxHCC Model Segments</b>						
<b>Variable</b>	<b>Disease Group</b>	Community, Non-Low Income, Age>=65	Community, Non-Low Income, Age<65	Community, Low Income, Age>=65	Community, Low Income, Age<65	Institutional
<b>Female</b>						
0-34 Years	-	-	0.266	-	0.405	1.555
35-44 Years	-	-	0.472	-	0.599	1.576
45-54 Years	-	-	0.578	-	0.672	1.490
55-59 Years	-	-	0.571	-	0.643	1.411
60-64 Years	-	-	0.577	-	0.617	1.357
65 Years	-	0.418	-	0.449	-	1.447
66 Years	-	0.418	-	0.449	-	1.447
67 Years	-	0.418	-	0.449	-	1.447
68 Years	-	0.418	-	0.449	-	1.447
69 Years	-	0.418	-	0.449	-	1.447
70-74 Years	-	0.415	-	0.439	-	1.367
75-79 Years	-	0.421	-	0.436	-	1.309
80-84 Years	-	0.431	-	0.432	-	1.254
85-89 Years	-	0.440	-	0.422	-	1.199
90-94 Years	-	0.438	-	0.399	-	1.127
95 Years or Over	-	0.414	-	0.328	-	0.981
<b>Male</b>						
0-34 Years	-	-	0.244	-	0.435	1.582
35-44 Years	-	-	0.396	-	0.562	1.542
45-54 Years	-	-	0.521	-	0.604	1.471
55-59 Years	-	-	0.519	-	0.571	1.377
60-64 Years	-	-	0.536	-	0.541	1.325
65 Years	-	0.425	-	0.367	-	1.384
66 Years	-	0.425	-	0.367	-	1.384
67 Years	-	0.425	-	0.367	-	1.384
68 Years	-	0.425	-	0.367	-	1.384
69 Years	-	0.425	-	0.367	-	1.384
70-74 Years	-	0.416	-	0.359	-	1.339
75-79 Years	-	0.407	-	0.354	-	1.295

**Continuing Enrollee (CE) RxHCC Model Segments**

<b>Variable</b>	<b>Disease Group</b>	Community, Non-Low Income, Age>=65	Community, Non-Low Income, Age<65	Community, Low Income, Age>=65	Community, Low Income, Age<65	Institutional
80-84 Years		0.402	-	0.342	-	1.265
85-89 Years		0.404	-	0.343	-	1.242
90-94 Years		0.429	-	0.364	-	1.197
95 Years or Over		0.433	-	0.357	-	1.094
<b>Originally Disabled Interactions with Sex</b>						
Originally Disabled		-	-	-	-	0.031
Originally Disabled_Female		0.066	-	0.102	-	-
Originally Disabled_Female_Age 65		-	-	-	-	-
Originally Disabled_Female_Age 66-69		-	-	-	-	-
Originally Disabled_Female_Age 70-74		-	-	-	-	-
Originally Disabled_Female_Age 75+		-	-	-	-	-
Originally Disabled_Male		0.018	-	0.091	-	-
Originally Disabled_Male_Age 65		-	-	-	-	-
Originally Disabled_Male_Age 66-69		-	-	-	-	-
Originally Disabled_Male_Age 70-74		-	-	-	-	-
Originally Disabled_Male_Age 75+		-	-	-	-	-

**Continuing Enrollee (CE) RxHCC Model Segments**

<b>Disease Coefficients</b>	<b>Description Label</b>	Community, Non-Low Income, Age>=65	Community, Non-Low Income, Age<65	Community, Low Income, Age>=65	Community, Low Income, Age<65	Institutional
RXHCC1	HIV/AIDS	1.625	2.381	2.123	2.545	1.082
RXHCC5	Opportunistic Infections	0.111	0.124	0.083	0.180	0.083
RXHCC8	Chronic Myeloid Leukemia	1.684	2.124	2.099	2.374	1.056
RXHCC9	Multiple Myeloma and Other Neoplastic Disorders	1.116	1.304	1.017	1.215	0.557
RXHCC10	Breast, Lung, and Other Cancers and Tumors	0.207	0.206	0.237	0.254	0.102
RXHCC11	Prostate and Other Cancers and Tumors	0.040	0.051	0.116	0.063	0.081
RXHCC14	Diabetes with Complications	0.246	0.186	0.275	0.271	0.158
RXHCC15	Diabetes without Complication	0.173	0.151	0.213	0.222	0.113

## Continuing Enrollee (CE) RxHCC Model Segments

<b>Disease Coefficients</b>	<b>Description Label</b>	Community, Non-Low Income, Age>=65	Community, Non-Low Income, Age<65	Community, Low Income, Age>=65	Community, Low Income, Age<65	Institutional
RXHCC18	Diabetes Insipidus and Other Endocrine and Metabolic Disorders	0.242	0.564	0.187	0.624	0.126
RXHCC19	Pituitary, Adrenal Gland, and Other Endocrine and Metabolic Disorders	0.043	0.060	0.030	0.060	0.060
RXHCC20	Thyroid Disorders	0.037	0.091	0.046	0.104	0.037
RXHCC21	Morbid Obesity	0.038	0.013	0.037	0.049	0.069
RXHCC23	Disorders of Lipoid Metabolism	0.120	0.134	0.142	0.182	0.062
RXHCC25	Chronic Viral Hepatitis	0.078	0.042	0.220	0.111	—
RXHCC30	Chronic Pancreatitis	0.085	0.154	0.046	0.075	0.021
RXHCC31	Pancreatic Disorders and Intestinal Malabsorption, Except Pancreatitis	0.032	0.066	0.034	0.075	0.021
RXHCC32	Inflammatory Bowel Disease	0.264	0.245	0.190	0.315	0.075
RXHCC33	Esophageal Reflux and Other Disorders of Esophagus	0.135	0.111	0.161	0.175	0.075
RXHCC38	Aseptic Necrosis of Bone	0.053	0.153	0.044	0.233	0.068
RXHCC40	Psoriatic Arthropathy	0.321	0.447	0.571	1.011	0.377
RXHCC41	Rheumatoid Arthritis and Other Inflammatory Polyarthropathy	0.169	0.258	0.197	0.390	0.095
RXHCC42	Systemic Lupus Erythematosus, Other Connective Tissue Disorders, and Inflammatory Spondylopathies	0.122	0.236	0.161	0.266	0.084
RXHCC45	Osteoporosis, Vertebral and Pathological Fractures	0.093	0.157	0.125	0.181	0.027
RXHCC47	Sickle Cell Anemia	0.144	0.093	0.133	0.433	0.036
RXHCC48	Myelodysplastic Syndromes, Except High-Grade	0.211	0.370	0.299	0.231	0.426
RXHCC49	Immune Disorders	0.149	0.244	0.130	0.276	0.141
RXHCC50	Aplastic Anemia and Other Significant Blood Disorders	0.044	0.087	0.059	0.073	0.036
RXHCC54	Alzheimer's Disease	0.468	0.265	0.310	0.184	0.016
RXHCC55	Dementia, Except Alzheimer's Disease	0.250	0.097	0.143	0.049	—
RXHCC58	Schizophrenia	0.422	0.569	0.645	0.959	0.343
RXHCC59	Bipolar Disorders	0.353	0.435	0.427	0.677	0.293

**Continuing Enrollee (CE) RxHCC Model Segments**

<b>Disease Coefficients</b>	<b>Description Label</b>	Community, Non-Low Income, Age>=65	Community, Non-Low Income, Age<65	Community, Low Income, Age>=65	Community, Low Income, Age<65	Institutional
RXHCC60	Major Depression	0.265	0.337	0.308	0.439	0.205
RXHCC61	Specified Anxiety, Personality, and Behavior Disorders	0.159	0.216	0.220	0.439	0.175
RXHCC62	Depression	0.134	0.169	0.146	0.230	0.116
RXHCC63	Anxiety Disorders	0.056	0.122	0.088	0.182	0.116
RXHCC65	Autism	0.171	0.326	0.495	0.661	0.175
RXHCC66	Profound or Severe Mental Retardation/Developmental Disability	0.027	0.326	0.495	0.400	—
RXHCC67	Moderate Mental Retardation/Developmental Disability	0.023	0.178	0.404	0.294	—
RXHCC68	Mild or Unspecified Mental Retardation/Developmental Disability	0.010	0.054	0.239	0.144	—
RXHCC71	Myasthenia Gravis, Amyotrophic Lateral Sclerosis and Other Motor Neuron Disease	0.181	0.303	0.159	0.314	0.057
RXHCC72	Spinal Cord Disorders	0.061	0.156	0.072	0.095	—
RXHCC74	Polyneuropathy	0.085	0.203	0.082	0.182	0.058
RXHCC75	Multiple Sclerosis	0.451	0.811	0.494	1.338	0.123
RXHCC76	Parkinson`s Disease	0.406	0.485	0.295	0.292	0.154
RXHCC78	Intractable Epilepsy	0.355	0.636	0.354	0.915	0.124
RXHCC79	Epilepsy and Other Seizure Disorders, Except Intractable Epilepsy	0.214	0.267	0.170	0.370	0.079
RXHCC80	Convulsions	0.106	0.125	0.099	0.230	0.041
RXHCC81	Migraine Headaches	0.113	0.216	0.111	0.201	0.146
RXHCC83	Trigeminal and Postherpetic Neuralgia	0.093	0.170	0.107	0.154	0.079
RXHCC86	Pulmonary Hypertension and Other Pulmonary Heart Disease	0.253	0.397	0.292	0.345	0.121
RXHCC87	Congestive Heart Failure	0.175	0.089	0.247	0.108	0.099
RXHCC88	Hypertension	0.170	0.078	0.219	0.096	0.064



## Continuing Enrollee (CE) RxHCC Model Segments

Disease Coefficients	Description Label	Community,	Community,	Community,	Community,	Institutional
		Non-Low Income, Age>=65	Non-Low Income, Age<65	Low Income, Age>=65	Low Income, Age<65	
RXHCC89	Coronary Artery Disease	0.145	0.082	0.133	0.046	0.017
RXHCC93	Atrial Arrhythmias	0.060	0.045	0.023	—	0.011
RXHCC97	Cerebrovascular Disease, Except Hemorrhage or Aneurysm	0.065	—	0.050	—	—
RXHCC98	Spastic Hemiplegia	0.142	0.239	0.056	0.149	0.011
RXHCC100	Venous Thromboembolism	0.013	0.043	—	0.085	—
RXHCC101	Peripheral Vascular Disease	0.056	0.030	0.093	0.064	—
RXHCC103	Cystic Fibrosis	0.198	0.665	0.223	1.346	0.117
RXHCC104	Chronic Obstructive Pulmonary Disease and Asthma	0.198	0.123	0.221	0.204	0.117
RXHCC105	Pulmonary Fibrosis and Other Chronic Lung Disorders	0.113	0.123	0.098	0.202	0.037
RXHCC106	Gram-Negative/Staphylococcus Pneumonia and Other Lung Infections	—	0.070	—	0.042	0.028
RXHCC111	Diabetic Retinopathy	0.094	0.085	0.079	0.039	0.035
RXHCC113	Open-Angle Glaucoma	0.142	0.103	0.154	0.124	0.101
RXHCC120	Kidney Transplant Status	0.266	0.170	0.386	0.407	0.338
RXHCC121	Dialysis Status	0.216	0.303	0.283	0.536	0.217
RXHCC122	Chronic Kidney Disease Stage 5	0.114	0.136	0.130	0.167	0.111
RXHCC123	Chronic Kidney Disease Stage 4	0.114	0.136	0.130	0.167	0.111
RXHCC124	Chronic Kidney Disease Stage 3	0.097	0.136	0.115	0.167	0.081
RXHCC125	Chronic Kidney Disease Stage 1, 2, or Unspecified	0.038	0.056	0.035	0.071	0.042
RXHCC126	Nephritis	0.038	0.036	0.035	0.070	0.013
RXHCC142	Chronic Ulcer of Skin, Except Pressure	0.040	0.055	0.028	0.061	—
RXHCC145	Pemphigus	0.110	0.151	0.123	0.258	—
RXHCC147	Psoriasis, Except with Arthropathy	0.106	0.188	0.206	0.289	0.126
RXHCC156	Narcolepsy and Cataplexy	0.267	0.328	0.164	0.440	0.104
RXHCC166	Lung Transplant Status	0.919	0.905	0.968	1.114	0.688
RXHCC167	Major Organ Transplant Status, Except Lung, Kidney, and Pancreas	0.411	0.372	0.417	0.480	0.338
RXHCC168	Pancreas Transplant Status	0.266	0.170	0.386	0.351	0.338

**Continuing Enrollee (CE) RxHCC Model Segments**

<b>Disease Coefficients</b>	<b>Description Label</b>	Community, Non-Low Income, Age>=65	Community, Non-Low Income, Age<65	Community, Low Income, Age>=65	Community, Low Income, Age<65	Institutional
<b>Non-Aged Disease Interactions</b>						
NonAged_RXHCC1	HIV/AIDS	-	-	-	-	1.093
NonAged_RXHCC58	Schizophrenia	-	-	-	-	0.388
NonAged_RXHCC59	Bipolar Disorders	-	-	-	-	0.243
NonAged_RXHCC60	Major Depression	-	-	-	-	0.115
NonAged_RXHCC61	Specified Anxiety, Personality, and Behavior Disorders	-	-	-	-	0.115
NonAged_RXHCC62	Depression	-	-	-	-	0.058
NonAged_RXHCC63	Anxiety Disorders	-	-	-	-	0.032
NonAged_RXHCC65	Autism	-	-	-	-	0.115
NonAged_RXHCC75	Multiple Sclerosis	-	-	-	-	0.477
NonAged_RXHCC78	Intractable Epilepsy	-	-	-	-	0.204
NonAged_RXHCC79	Epilepsy and Other Seizure Disorders, Except Intractable Epilepsy	-	-	-	-	0.040
NonAged_RXHCC80	Convulsions	-	-	-	-	0.034

**Notes:**

1. The relative risk scores in this table were calculated by dividing the parameter estimates by the Part D national average predicted expenditures (CMS Part D Denominator). The Part D Denominator value used was \$1,086.61. This Part D Denominator is based on the combined PDP and MA-PD populations.
2. Because Part D drugs post-transplant are less costly for younger Medicare beneficiaries, RxHCC120, which takes precedence over RxHCC121, has a lower coefficient than RxHCC121 for those under age 65.

Source: RTI Analysis of 100% 2008 PDE, 2007 NCH, 2008 HPMS, 2008 CME, and 2007-2008 Denominator.

**Table 13. Preliminary RxHCC Model Relative Factors for New Enrollees, Non-Low Income**

<b>Variable</b>	<b>Baseline – Not Concurrently ESRD, Not Originally Disabled</b>	<b>Concurrently ESRD, Not Originally Disabled</b>	<b>Originally Disabled, Not Concurrently ESRD</b>	<b>Originally Disabled, Concurrently ESRD</b>
<b>Female</b>				
0-34 Years	0.473	0.908	-	-
35-44 Years	0.789	1.224	-	-
45-54 Years	1.056	1.491	-	-
55-59 Years	1.124	1.559	-	-
60-64 Years	1.173	1.608	-	-
65 Years	0.764	1.199	1.148	1.583
66 Years	0.760	1.195	0.899	1.334
67 Years	0.760	1.195	0.899	1.334
68 Years	0.760	1.195	0.899	1.334
69 Years	0.760	1.195	0.899	1.334
70-74 Years	0.744	1.179	0.744	1.179
75-79 Years	0.681	1.116	0.681	1.116
80-84 Years	0.652	1.087	0.652	1.087
85-89 Years	0.570	1.005	0.570	1.005
90-94 Years	0.570	1.005	0.570	1.005
95 Years or Over	0.570	1.005	0.570	1.005
<b>Male</b>				
0-34 Years	0.323	0.758	-	-
35-44 Years	0.607	1.042	-	-
45-54 Years	0.870	1.304	-	-
55-59 Years	0.927	1.361	-	-
60-64 Years	1.017	1.452	-	-
65 Years	0.781	1.216	1.022	1.457
66 Years	0.765	1.200	0.765	1.200
67 Years	0.765	1.200	0.765	1.200
68 Years	0.765	1.200	0.765	1.200
69 Years	0.765	1.200	0.765	1.200
70-74 Years	0.727	1.162	0.727	1.162
75-79 Years	0.645	1.079	0.645	1.079
80-84 Years	0.544	0.979	0.544	0.979
85-89 Years	0.465	0.900	0.465	0.900
90-94 Years	0.465	0.900	0.465	0.900
95 Years or Over	0.465	0.900	0.465	0.900

**NOTES:**

1. The Part D Denominator used to calculate relative factors is \$1,086.61. This Part D Denominator is based on the combined PDP and MA-PD populations.
2. Originally Disabled is defined as originally entitled to Medicare by disability only.
3. Concurrently ESRD is defined as at least one month in 2008 of ESRD status—dialysis, transplant, or post-graft.

Source: RTI Analysis of 100% 2008 PDE SAF, 2007-2008 HPMS, 2008 CME, and 2007-2008 Denominator.

**Table 14. Preliminary RxHCC Model Relative Factors for New Enrollees, Low Income**

Variable	Baseline – Not Concurrently ESRD and Not Originally Disabled	Concurrently ESRD, Not Originally Disabled	Originally Disabled, Not Concurrently ESRD	Originally Disabled, Concurrently ESRD
<b>Female</b>				
0-34 Years	0.892	1.441	-	-
35-44 Years	1.241	1.790	-	-
45-54 Years	1.278	1.827	-	-
55-59 Years	1.165	1.713	-	-
60-64 Years	1.137	1.686	-	-
65 Years	0.868	1.417	1.061	1.610
66 Years	0.599	1.148	0.756	1.305
67 Years	0.599	1.148	0.756	1.305
68 Years	0.599	1.148	0.756	1.305
69 Years	0.599	1.148	0.756	1.305
70-74 Years	0.610	1.159	0.767	1.316
75-79 Years	0.665	1.214	0.823	1.372
80-84 Years	0.697	1.246	0.855	1.404
85-89 Years	0.696	1.245	0.854	1.402
90-94 Years	0.696	1.245	0.854	1.402
95 Years or Over	0.696	1.245	0.854	1.402

**Male**

0-34 Years	0.836	1.385	-	-
35-44 Years	1.115	1.664	-	-
45-54 Years	1.075	1.623	-	-
55-59 Years	0.931	1.480	-	-
60-64 Years	0.882	1.431	-	-
65 Years	0.687	1.236	0.787	1.336
66 Years	0.445	0.994	0.549	1.098
67 Years	0.445	0.994	0.549	1.098
68 Years	0.445	0.994	0.549	1.098
69 Years	0.445	0.994	0.549	1.098
70-74 Years	0.457	1.006	0.561	1.110
75-79 Years	0.487	1.036	0.487	1.036
80-84 Years	0.480	1.029	0.480	1.029
85-89 Years	0.517	1.065	0.517	1.065
90-94 Years	0.517	1.065	0.517	1.065
95 Years or Over	0.517	1.065	0.517	1.065

**NOTES:**

1. The Part D Denominator used to calculate relative factors is \$1,086.61. This Part D Denominator is based on the combined PDP and MA-PD populations.
2. Originally Disabled is defined as originally entitled to Medicare by disability only.
3. Concurrently ESRD is defined as at least one month in 2008 of ESRD status—dialysis, transplant, or post-graft.

Source: RTI Analysis of 100% 2008 PDE SAF, 2007-2008 HPMS, 2008 CME, and 2007-2008 Denominator.

**Table 15. Preliminary RxHCC Model Relative Factors for New Enrollees, Institutional**

<b>Variable</b>	<b>Baseline – Not Concurrently ESRD</b>	<b>Concurrently ESRD</b>
<b>Female</b>		
0-34 Years	2.136	2.371
35-44 Years	2.136	2.371
45-54 Years	2.050	2.285
55-59 Years	2.013	2.248
60-64 Years	1.952	2.187
65 Years	2.024	2.259
66 Years	1.816	2.051
67 Years	1.816	2.051
68 Years	1.816	2.051
69 Years	1.816	2.051
70-74 Years	1.646	1.881
75-79 Years	1.578	1.813
80-84 Years	1.403	1.638
85-89 Years	1.235	1.470
90-94 Years	1.235	1.470
95 Years or Over	1.235	1.470
<b>Male</b>		
0-34 Years	2.159	2.394
35-44 Years	2.159	2.394
45-54 Years	2.098	2.333
55-59 Years	1.975	2.210
60-64 Years	1.826	2.061
65 Years	1.823	2.058
66 Years	1.715	1.950
67 Years	1.715	1.950
68 Years	1.715	1.950
69 Years	1.715	1.950
70-74 Years	1.603	1.838
75-79 Years	1.567	1.802
80-84 Years	1.533	1.768
85-89 Years	1.317	1.552
90-94 Years	1.317	1.552
95 Years or Over	1.317	1.552

**NOTES:**

1. The Part D Denominator used to calculate relative factors is \$1,086.61. This Part D Denominator is based on the combined PDP and MA-PD populations.
2. Concurrently ESRD is defined as at least one month in 2008 of ESRD status—dialysis, transplant, or post-graft.
3. The Part D New Enrollee Institutional sample does not have an Originally Disabled add-on (set to \$0 because of regression results).

Source: RTI Analysis of 100% 2008 PDE SAF, 2007-2008 HPMS, 2008 CME, and 2007-2008 Denominator.

**Table 16. Preliminary list of Disease Hierarchies for the Revised RxHCC Model****DISEASE HIERARCHIES**

<b>Rx Hierarchical Condition Category (RxHCC)</b>	<b>If the Disease Group is Listed in this column...</b>	<b>...Then drop the RxHCC(s) listed in this column</b>
	<b>Rx Hierarchical Condition Category (RxHCC) LABEL</b>	
8	Chronic Myeloid Leukemia	9,10,11,48,50
9	Multiple Myeloma and Other Neoplastic Disorders	10,11,48,50
10	Breast, Lung, and Other Cancers and Tumors	11
14	Diabetes with Complications	15
18	Diabetes Insipidus and Other Endocrine and Metabolic Disorders	19
30	Chronic Pancreatitis	31
40	Psoriatic Arthropathy	41,42,147
41	Rheumatoid Arthritis and Other Inflammatory Polyarthropathy	42
47	Sickle Cell Anemia	50
48	Myelodysplastic Syndromes, Except High-Grade	50
54	Alzheimer's Disease	55
58	Schizophrenia	59,60,61,62,63,65,66,67,68
59	Bipolar Disorders	60,61,62,63
60	Major Depression	61,62,63
61	Specified Anxiety, Personality, and Behavior Disorders	62,63
62	Depression	63
65	Autism	61,62,63,66,67,68
66	Profound or Severe Mental Retardation/Developmental Disability	67,68
67	Moderate Mental Retardation/Developmental Disability	68
78	Intractable Epilepsy	79,80
79	Epilepsy and Other Seizure Disorders, Except Intractable Epilepsy	80
86	Pulmonary Hypertension and Other Pulmonary Heart Disease	87,88
87	Congestive Heart Failure	88
103	Cystic Fibrosis	104,105
104	Chronic Obstructive Pulmonary Disease and Asthma	105
120	Kidney Transplant Status	121,122,123,124,125,126,168
121	Dialysis Status	122,123,124,125,126
122	Chronic Kidney Disease Stage 5	123,124,125,126
123	Chronic Kidney Disease Stage 4	124,125,126
124	Chronic Kidney Disease Stage 3	125,126
125	Chronic Kidney Disease Stage 1, 2, or Unspecified	126
166	Lung Transplant Status	167,168
167	Major Organ Transplant Status, Except Lung, Kidney, and Pancreas	168

SOURCE: RTI International.

**Table 17. Comparison of Current and Revised RxHCC Risk Adjustment Model RxHCCs**

Version 01 RxHCCs			Version 03 RxHCCs	
RxHCC	Description	Category Short Name	RxHCC	Description
RXHCC1	HIV/AIDS	Infection	RXHCC1	HIV/AIDS
RXHCC2	Opportunistic Infections		RXHCC5	Opportunistic Infections
RXHCC3	Infectious Diseases			
RXHCC8	Acute Myeloid Leukemia	Neoplasm	RXHCC8	Chronic Myeloid Leukemia
RXHCC9	Metastatic Cancer, Acute Leukemia, and Severe Cancers		RXHCC9	Multiple Myeloma and Other Neoplastic Disorders
RXHCC10	Lung, Upper Digestive Tract, and Other Severe Cancers		RXHCC10	Breast, Lung, and Other Cancers and Tumors
			RXHCC11	Prostate and Other Cancers and Tumors
RXHCC17	Diabetes with Complications	Diabetes	RXHCC14	Diabetes with Complications
RXHCC18	Diabetes without Complication		RXHCC15	Diabetes without Complication
RXHCC19	Disorders of Lipoid Metabolism	Metabolic	RXHCC18	Diabetes Insipidus and Other Endocrine and Metabolic Disorders
RXHCC20	Other Significant Endocrine and Metabolic Disorders		RXHCC19	Pituitary, Adrenal Gland, and Other Endocrine and Metabolic Disorders
RXHCC21	Other Specified Endocrine/Metabolic/Nutritional Disorders		RXHCC20	Thyroid Disorders
			RXHCC21	Morbid Obesity
			RXHCC23	Disorders of Lipoid Metabolism
RXHCC24	Chronic Viral Hepatitis	Liver	RXHCC25	Chronic Viral Hepatitis
RXHCC31	Chronic Pancreatic Disease	Gastrointestinal	RXHCC30	Chronic Pancreatitis
			RXHCC31	Pancreatic Disorders and Intestinal Malabsorption, Except Pancreatitis
RXHCC33	Inflammatory Bowel Disease		RXHCC32	Inflammatory Bowel Disease
RXHCC34	Peptic Ulcer and Gastrointestinal Hemorrhage		RXHCC33	Esophageal Reflux and Other Disorders of Esophagus
RXHCC37	Esophageal Disease			
RXHCC39	Bone/Joint/Muscle Infections/Necrosis	Musculoskeletal	RXHCC38	Aseptic Necrosis of Bone
RXHCC40	Behçet's Syndrome and Other Connective Tissue Disease		RXHCC40	Psoriatic Arthropathy
RXHCC41	Rheumatoid Arthritis and Other Inflammatory Polyarthropathy		RXHCC41	Rheumatoid Arthritis and Other Inflammatory Polyarthropathy

Version 01 RxHCCs			Version 03 RxHCCs	
RxHCC	Description	Category Short Name	RxHCC	Description
RXHCC42	Inflammatory Spondylopathies		RXHCC42	Systemic Lupus Erythematosus, Other Connective Tissue Disorders, and Inflammatory Spondylopathies Osteoporosis, Vertebral and Pathological Fractures
RXHCC43	Polymyalgia Rheumatica		RXHCC45	
RXHCC44	Psoriatic Arthropathy			
RXHCC45	Disorders of the Vertebrae and Spinal Discs			
RXHCC47	Osteoporosis and Vertebral Fractures			
RXHCC48	Other Musculoskeletal and Connective Tissue Disorders			
RXHCC51	Severe Hematological Disorders	Blood	RXHCC47	Sickle Cell Anemia
RXHCC52	Disorders of Immunity		RXHCC48	Myelodysplastic Syndromes, Except High-Grade
RXHCC54	Polycythemia Vera		RXHCC49	Immune Disorders
RXHCC55	Coagulation Defects and Other Specified Blood Diseases		RXHCC50	Aplastic Anemia and Other Significant Blood Disorders
RXHCC57	Delirium and Encephalopathy	Cognitive	RXHCC54	Alzheimer's Disease
RXHCC59	Dementia with Depression or Behavioral Disturbance		RXHCC55	Dementia, Except Alzheimer's Disease
RXHCC60	Dementia/Cerebral Degeneration			
RXHCC65	Schizophrenia	Psychiatric	RXHCC58	Schizophrenia
RXHCC66	Other Major Psychiatric Disorders		RXHCC59	Bipolar Disorders
RXHCC67	Other Psychiatric Symptoms/Syndromes		RXHCC60	Major Depression
RXHCC75	Attention Deficit Disorder		RXHCC61	Specified Anxiety, Personality, and Behavior Disorders
				RXHCC62
			RXHCC63	Anxiety Disorders
		Developmental Disability	RXHCC65	Autism
			RXHCC66	Profound or Severe Mental Retardation/Developmental Disability
			RXHCC67	Moderate Mental Retardation/Developmental Disability



Version 01 RxHCCs			Version 03 RxHCCs	
RxHCC	Description	Category Short Name	RxHCC	Description
			RXHCC68	Mild or Unspecified Mental Retardation/Developmental Disability
RXHCC76	Motor Neuron Disease and Spinal Muscular Atrophy	Neurological	RXHCC71	Myasthenia Gravis, Amyotrophic Lateral Sclerosis and Other Motor Neuron Disease
RXHCC77	Quadriplegia, Other Extensive Paralysis, and Spinal Cord Injuries		RXHCC72	Spinal Cord Disorders
RXHCC78	Muscular Dystrophy		RXHCC74	Polyneuropathy
RXHCC79	Polyneuropathy, except Diabetic		RXHCC75	Multiple Sclerosis
RXHCC80	Multiple Sclerosis		RXHCC76	Parkinson's Disease
RXHCC81	Parkinson's Disease		RXHCC78	Intractable Epilepsy
RXHCC82	Huntington's Disease		RXHCC79	Epilepsy and Other Seizure Disorders, Except Intractable Epilepsy
RXHCC83	Seizure Disorders and Convulsions		RXHCC80	Convulsions
RXHCC85	Migraine Headaches		RXHCC81	Migraine Headaches
RXHCC86	Mononeuropathy, Other Abnormal Movement Disorders		RXHCC83	Trigeminal and Postherpetic Neuralgia
RXHCC87	Other Neurological Conditions/Injuries			
RXHCC91	Congestive Heart Failure	Heart	RXHCC86	Pulmonary Hypertension and Other Pulmonary Heart Disease
RXHCC92	Acute Myocardial Infarction and Unstable Angina		RXHCC87	Congestive Heart Failure
RXHCC98	Hypertensive Heart Disease or Hypertension		RXHCC88	Hypertension
RXHCC99	Specified Heart Arrhythmias		RXHCC89 RXHCC93	Coronary Artery Disease Atrial Arrhythmias
RXHCC102	Cerebral Hemorrhage and Effects of Stroke	Cerebrovascular Disease	RXHCC97	Cerebrovascular Disease, Except Hemorrhage or Aneurysm
			RXHCC98	Spastic Hemiplegia
RXHCC105	Pulmonary Embolism and Deep Vein Thrombosis	Vascular	RXHCC100	Venous Thromboembolism
RXHCC106	Vascular Disease		RXHCC101	Peripheral Vascular Disease
RXHCC108	Cystic Fibrosis	Lung	RXHCC103	Cystic Fibrosis
RXHCC109	Asthma and COPD		RXHCC104	Chronic Obstructive Pulmonary Disease and Asthma

Version 01 RxHCCs			Version 03 RxHCCs	
RxHCC	Description	Category Short Name	RxHCC	Description
RXHCC110	Fibrosis of Lung and Other Chronic Lung Disorders		RXHCC105	Pulmonary Fibrosis and Other Chronic Lung Disorders
RXHCC111	Aspiration and Specified Bacterial Pneumonias		RXHCC106	Gram-Negative/Staphylococcus Pneumonia and Other Lung Infections
RXHCC112	Empyema, Lung Abscess, and Fungal and Parasitic Lung Infections			
RXHCC113	Acute Bronchitis and Congenital Lung/Respiratory Anomaly			
RXHCC120	Vitreous/Retinal Hemorrhage and Vascular Retinopathy except Diabetic	Eye	RXHCC111	Diabetic Retinopathy
RXHCC121	Macular Degeneration and Retinal Disorders, Except Detachment and Vascular Retinopathies		RXHCC113	Open-Angle Glaucoma
RXHCC122	Open-angle Glaucoma			
RXHCC123	Glaucoma and Keratoconus			
RXHCC126	Larynx/Vocal Cord Diseases	Ear, Nose, Throat		
RXHCC129	Other Diseases of Upper Respiratory System			
RXHCC130	Salivary Gland Diseases			
RXHCC132	Kidney Transplant Status	Kidney	RXHCC120	Kidney Transplant Status
RXHCC134	Chronic Renal Failure		RXHCC121	Dialysis Status
			RXHCC122	Chronic Kidney Disease Stage 5
			RXHCC123	Chronic Kidney Disease Stage 4
			RXHCC124	Chronic Kidney Disease Stage 3
			RXHCC125	Chronic Kidney Disease Stage 1, 2, or Unspecified
RXHCC135	Nephritis		RXHCC126	Nephritis
RXHCC137	Urinary Obstruction and Retention	Urinary, Genital		
RXHCC138	Fecal Incontinence			
RXHCC139	Incontinence			
RXHCC140	Impaired Renal Function and Other Urinary Disorders			
RXHCC144	Vaginal and Cervical Diseases			
RXHCC145	Female Stress Incontinence			
RXHCC157	Chronic Ulcer of Skin, Except Decubitus	Skin	RXHCC142	Chronic Ulcer of Skin, Except Pressure

Version 01 RxHCCs			Version 03 RxHCCs	
RxHCC	Description	Category Short Name	RxHCC	Description
RXHCC158	Psoriasis		RXHCC145	Pemphigus
RXHCC159	Cellulitis and Local Skin Infection		RXHCC147	Psoriasis, Except with Arthropathy
RXHCC160	Bullous Dermatoses and Other Specified Erythematous Conditions			
RXHCC165	Vertebral Fractures without Spinal Cord Injury	Injury		(See Note 2.)
RXHCC166	Pelvic Fracture			
		Sleep	RXHCC156	Narcolepsy and Cataplexy
RXHCC186	Major Organ Transplant Status	Transplant	RXHCC166	Lung Transplant Status
RXHCC187	Other Organ Transplant/Replacement		RXHCC167	Major Organ Transplant Status, Except Lung, Kidney, and Pancreas
			RXHCC168	Pancreas Transplant Status
		<b>Disabled-Disease Interactions</b>		
DRXHCC65	Age < 65 and RXHCC65 (Schizophrenia)			
DRXHCC66	Age < 65 and RXHCC66 (Other Major Psychiatric Disorders)			
DRXHCC108	Age < 65 and RXHCC108 (Cystic Fibrosis)			
		<b>Interactions That Are in the V03 Institutional RxHCC Model Only</b>	NonAged_RXHCC1	NonAged * HIV/AIDS
			NonAged_RXHCC58	NonAged * Schizophrenia
			NonAged_RXHCC59	NonAged * Bipolar Disorders
			NonAged_RXHCC60	NonAged * Major Depression
			NonAged_RXHCC61	NonAged * Specified Anxiety, Personality, and Behavior Disorders
			NonAged_RXHCC62	NonAged * Depression
			NonAged_RXHCC63	NonAged * Anxiety Disorders
			NonAged_RXHCC65	NonAged * Autism
			NonAged_RXHCC75	NonAged * Multiple Sclerosis
			NonAged_RXHCC78	NonAged * Intractable Epilepsy
			NonAged_RXHCC79	NonAged * Epilepsy and Other Seizure Disorders, Except Intractable Epilepsy
			NonAged_RXHCC80	NonAged * Convulsions

**NOTES:**

1. NonAged is defined as age < 65 as of February 1 of the payment year.

SOURCE: RTI International.

**Table 18. Preliminary Recalibrated Frailty Factors for CY 2011**

ADL	2009 Factors (Non-Medicaid)	2011 Recalibrated Factors (Non-Medicaid)	2009 Factors (Medicaid)	2011 Recalibrated Factors (Medicaid)
0	-0.093	-0.079	-0.180	-0.201
1-2	0.112	0.118	0.035	0.000
3-4	0.201	0.187	0.155	0.105
5-6	0.381	0.335	0.200	0.121

## **Attachment VI: 2011 Call Letter**

### **How to Use This Call Letter**

The 2011 Call Letter contains information on the Part C cost-based (Quality and Performance Measures section only), and Part D programs. Also, we indicate when certain sections apply to cost-reimbursed HMOs, PACE programs, and employer and union-sponsored group health plans (EGWPs).

This year's letter is structured differently from prior year call letters. Section 1 provides new policy for MA plans, MA-PD plans, and PDPs (and with respect to non-contracting physician payment, cost-reimbursed HMOs). Section 2 provides updated information for Parts C and D organizations/sponsors, including the updated calendar for CY 2011.

Over the past year, CMS has committed its resources to improving the quality of plan choices for beneficiaries who elect to enroll in Medicare Advantage and prescription drug plans. As part of this effort, CMS:

- Published a proposed regulation (4085-P) on October 22, 2009 that would make revisions to the Parts C and D regulations to ensure meaningful differences among plan offerings, strengthen beneficiary protections, and improve data for CMS oversight and quality assessment. CMS is currently reviewing comments submitted by the public and is in the process of developing the policies for the final rule.
- Released new or revised Medicare manual chapters.
- Non-renewed a number of plans for CY 2010 because they had little or no enrollment, thus reducing the beneficiary's confusion when choosing to enroll in a Medicare Advantage or prescription drug plan.
- Conducted listening sessions for industry and advocacy groups before the end of CY 2009, to give them the opportunity to communicate their concerns to CMS regarding any procedural or operational issues they would like CMS to address in the 45-day notice and call letter for CY 2011.

Since this year's final Call Letter will be released close to the expected final publication of the final rule (4085-F), the content is limited to clarification of current policy and operational guidance. However, requirements contained in the final rule may be included in this year's final Call Letter, even if they have not been included in this draft Call Letter. We remind sponsoring organizations to continue to remain responsible for familiarizing themselves with statutory requirements, regulations, and guidance governing the MA and Part D programs, including the Medicare Advantage and Prescription Drug Benefit Manuals. CMS will separately issue technical and procedural clarifications regarding bid and formulary submissions, benefits, HPMS

data, CMS marketing models, and other operational issues of interest to sponsoring organizations.

We hope this information helps you implement and comply with CMS policies and procedures as you prepare either to offer a plan for the first time or continue offering plans under the MA and/or Part D programs.

If you have questions concerning this Call Letter, please contact:

Christopher McClintick at [Christopher.McClintick@cms.hhs.gov](mailto:Christopher.McClintick@cms.hhs.gov) for Part C Call Letter items

Christine Hinds at [Christine.Hinds@cms.hhs.gov](mailto:Christine.Hinds@cms.hhs.gov) for Part D Call Letter items

## Table of Contents

ATTACHMENT VI: 2011 CALL LETTER .....	78
SECTION 1 - NEW POLICY .....	81
Part C .....	81
I. Special Needs Plans (SNP).....	81
II. Quality and Performance Measures .....	81
Part D .....	82
I. Part D Benefits.....	82
II. Reassignment .....	84
SECTION 2 - UPDATES TO PARTS C AND D POLICY/CALENDAR .....	85
I. Recommended Deadlines for Cost-Based Plan Non-Renewals .....	96
II. Coordination of Benefits (COB) User Fees .....	96
III. Specialty Tier Threshold.....	96
IV. Medicare Enrollment Assistance Demonstration .....	96
V. Risk Adjustment Data Validation (RADV) .....	97
VI. Release of Part C and Part D Payment Data.....	97



## Section 1 - New Policy

### Part C

#### I. Special Needs Plans (SNP)

##### *State Resource Center*

Section 164 of the Medicare Improvements for Patients and Providers Act of 2008 (MIPPA) directed CMS to provide technical assistance to States to promote Medicare-Medicaid benefit integration for dual eligible populations. The Resource Center was CMS' response to equip States with helpful information as they engage in contract negotiations with MAOs seeking to offer new or expanded dual eligible special needs plans (SNP).

The goal of the State Resource Center is to support State Medicaid agencies' efforts to increase coordination with MAOs offering specialized plans for dually eligible individuals (dual eligible SNPs). Additionally, the State Resource Center provides a forum for States to make inquiries and share knowledge about the coordination of State and Federal policies pertaining to SNPs. To these ends, since its establishment the resource center has--

- Developed best practices with respect to model contracts with States
- Led training sessions
- Established a website to provide information on coordination issues ([http://www.cms.hhs.gov/SpecialNeedsPlans/05\\_StateResourceCenter.asp](http://www.cms.hhs.gov/SpecialNeedsPlans/05_StateResourceCenter.asp))

#### II. Quality and Performance Measures

##### *CAHPS and HOS Reporting for Special Needs Plans*

For plan year 2011, the Consumer Assessment of Health Plans Survey (CAHPS) and the Medicare Health Outcomes Survey (HOS) will continue to sample, collect, and report data at the contract level. However, oversampling of SNP plan benefit packages will occur within each eligible contract to allow for a more focused analysis of SNP results. CMS will release information about the expected increase in sample size for applicable organizations in future guidance.

CMS is currently analyzing limited aggregate SNP data available from prior HOS and CAHPS data sets and will publicly share findings in a report that will be released later in 2010.

**Note:** Continuing 1876 cost contracts should continue to report the same quality and performance measures as they have in the past.

### ***HOS Survey Administration***

The current year Health Employer Data Information Set (HEDIS) reporting category that reports the HOS results applies to the following managed care organization types with a minimum of 500 members that had a Medicare contract in effect on or before January 1, 2010: (1) all coordinated care contractors, including health maintenance organizations (HMOs), local preferred provider organizations (PPOs) and regional PPOs; (2) private fee-for-service (PFFS) contracts; (3) medical savings account (MSA) contracts; and (4) continuing 1876 cost contracts with open enrollment. Organizations eligible to report also include MA contracts with exclusively special needs plan benefit packages, regardless of institutional, chronically ill, or dual-eligible enrollment.

All Programs of All Inclusive Care for the Elderly (PACE) with contracts in effect on or before January 1, 2010 should administer the HOS-Modified (HOS-M) survey for current year HEDIS reporting. A minimum enrollment threshold does not apply to the HOS-M. Note that the Minnesota Senior Health Options, Minnesota Disability Health Options, Wisconsin Partnership Programs, and Massachusetts MassHealth Senior Care Options MA contracts are required to report HOS and no longer participate in HOS-M.

## **Part D**

### **I. Part D Benefits**

#### ***Potential New B versus D Coverage Determination for beneficiaries with End Stage Renal Disease***

CMS published a notice of proposed rulemaking (NPRM) in the Federal Register on September 29, 2009 that would implement a case-mix adjusted bundled prospective payment system (PPS) for Medicare outpatient end-stage renal disease (ESRD) dialysis facilities beginning January 1, 2011, in compliance with the statutory requirement of the Medicare Improvements for Patients and Providers Act (MIPPA) of 2008. (74 FR 49922) The proposed ESRD PPS would replace the current basic case-mix adjusted composite payment system and the methodologies for the reimbursement of separately billable outpatient ESRD services. In accordance with MIPPA, the rule proposes to include erythropoiesis stimulating agents, and other drugs and biologicals and their oral equivalents, furnished to individuals for the treatment of ESRD in the new bundled payment as “renal dialysis services”. Any such drugs or biologicals that would be defined as “renal dialysis services” under the new ESRD PPS would not be eligible for coverage under Part D when furnished to individuals for the treatment of ESRD. Rather, these drugs or biologicals and all other renal dialysis services would be covered under the Medicare Part B benefit. CMS will explore the possibility of providing an indicator on transaction reply reports to identify ESRD beneficiaries in the dialysis stage that could assist Part D sponsors with making associated

Medicare Part B vs. Part D determinations. CMS plans to publish the ESRD PPS final rule in 2010.

### ***Encouragement of Sponsor Practices to Curb Waste of Unused Drugs Dispensed in the Retail Setting***

As part of CMS's effort to contain health care costs and reduce waste associated with the Medicare prescription drug benefit, we are requesting that Part D sponsors consider allowing beneficiaries in the community (versus institutional) setting the option to request a trial supply of no more than 7 to 14 days of a Part D covered medication when first prescribed. With this option, Part D sponsors would be expected to prorate cost-share amounts associated with that prescription. For 2011, we have included a field in the PBP to allow sponsors to indicate whether they will offer prorated copayments to support this practice.

Current physician prescribing patterns and pharmacy benefit management payment practices result in most prescriptions being dispensed in 30 or 90 day quantities. Whenever the full amount dispensed is not utilized by the patient due to death, adverse reactions, medication substitution, or other reason for discontinuation, the remaining unused medication becomes waste. It also becomes an environmental hazard when disposed of, and is sometimes a safety hazard in the home or diverted to illegal use.

CMS' review of 2007 Prescription Drug Event (PDE) data suggests that up to as many as 30% of first fills for chronic medications are not refilled. If the disincentive of paying the full cost sharing amount was eliminated, and copays were prorated for the amount actually dispensed, beneficiaries might appreciate the opportunity to request an initial trial fill for new medications. We believe that trial fills will be most appreciated by beneficiaries and their physicians when initiating new therapies and for more expensive medications. We also believe that the proration of prescriptions ("partial fills") is a practice consistent with state pharmacy law and accommodated by pharmacies and transaction systems today. Thus, only a change in payer practices including negotiation of appropriate dispensing or incentive fees for promotion of these trial fills may be needed to implement this waste reduction strategy at the pharmacy counter.

There are several benefits to the program in adopting the proration of cost-sharing for trial supplies:

- Discourages both environmental waste and diversion of unused drugs for illegal use.
- Motivates the beneficiary to request partial fills in order to gauge tolerance of the new drug. By allowing plan members to obtain a partial fill for new medications, the member may try the medication and return to the pharmacy for the full amount when the patient has demonstrated a tolerance for the new medication.
- May serve as a substitute for physicians' practice of giving patients samples of medications that may not be compatible with the patient's Part D plan formulary.
- Promotes savings to the beneficiary, Part D sponsor and Medicare program.

For 2011, we have included a field in the PBP to allow sponsors to indicate whether they offer prorated copayments to support this practice. We encourage Part D sponsors to discuss implementing this practice with network pharmacies and to support this effort. We also request comments or concerns regarding implementation of the practice of trial fills in the community setting from all stakeholders, including from beneficiary advocates, physicians, pharmacies, and Part D sponsors.

## **II. Reassignment**

In the fall of 2010, we will again conduct reassignment of certain low income subsidy (LIS) beneficiaries who were originally assigned to a Prescription Drug Plan (PDP) whose premium is below the LIS benchmark in 2010, but will go above the LIS benchmark in 2011. Details of the process may be found in section 30.1.5 of the PDP Eligibility, Enrollment, and Disenrollment Guidance, on our website at <http://www.cms.hhs.gov/MedicarePresDrugEligEnrol/Downloads/PDPEenrollmentGuidanceUpdateFINAL2010.pdf>

In the past, we have reassigned only individuals who have never chosen a plan on their own and, thus, remain in a plan into which they were auto-enrolled by CMS. We have not reassigned individuals who chose their PDP, although we have conducted outreach, including notifying them via tan-colored letters of the zero-premium plans available in their region.

For the fall of 2010, we are considering expanding reassignment to these “choosers” based on their 2011 premium liability, for example, if their 2011 premium will be \$10 or greater. We are concerned that these beneficiaries – despite targeted outreach – may not fully understand they have less expensive alternatives. Particularly with premiums higher than \$10, we believe there is increased risk that individuals will not be able to pay their premiums, which could result in disenrollment for nonpayment of premium.

As with the standard reassignment process, these beneficiaries would be informed that if they take no action, CMS would reassign them to a zero premium plan; but if they want to remain in their current PDP, they need only contact that PDP and indicate they want to stay enrolled. We are exploring the feasibility of considering past medication use as part of the reassignment process.

We solicit comments on this proposal, including whether we should “reassign” choosers and if so, the premium liability threshold that should trigger reassignment. We also solicit comments on what other criteria, if any, we might consider when reassigning beneficiaries in addition to premium liability and medication use.

The premium liabilities for 2010 LIS choosers array as follows:

<b>LIS Plan Premium Range</b>	<b>Number of Plans</b>	<b>Number of Beneficiaries</b>	<b>Proportion of Choosers</b>
Premium < \$5	290	473,756	27.7%
Premium \$5 - \$9.99	201	654,359	38.3%
Premium \$10 - \$14.99	168	349,615	20.5%
Premium \$15 - \$19.99	132	80,241	4.7%
Premium \$20 - \$29.99	132	59,184	3.5%
Premium \$30 +	416	91,498	5.4%
<b>Total</b>	<b>1,339</b>	<b>1,708,653</b>	

## Section 2 - Updates to Parts C and D Policy/Calendar

<b><i>2011 MA, MA-PD, Part D and Cost-Based Plan Calendar</i></b>				
<b>(All dates, unless identified as statutory, are subject to change)</b>				
<b>2010</b>		<b>*Part C</b>	<b>*Part D Sponsors</b>	<b>Cost</b>
<b>*Note: The dates listed under Part C include MA and MA-PD plans. The dates listed under Part D Sponsors also apply to MA and Cost-based plans offering a Part D benefit.</b>				
March 5, 2010	Initial Submission deadline for risk adjustment data with dates of service January 1, 2009 through December 31, 2009	✓		✓
March 29, 2010	Release Health Plan Management System (HPMS) formulary submissions module.	✓	✓	
March 2010	Release guidance regarding potentially duplicative and /or low enrollment plans for 2011 bid submission.	✓		
TBD	Conference call with industry to discuss the 2011 Call Letter.	✓	✓	✓
TBD	Medicare Advantage and Part D National Conference.	✓	✓	
Early April 2010	Information about renewal options for contract year 2011 (including HPMS crosswalk charts) will be provided to plans.	✓	✓	
April 2010	Release guidance regarding benefits review standards for 2011 bid submissions.	✓	✓	

<b>2011 MA, MA-PD, Part D and Cost-Based Plan Calendar</b>				
<b>(All dates, unless identified as statutory, are subject to change)</b>				
<b>2010</b>		<b>*Part C</b>	<b>*Part D Sponsors</b>	<b>Cost</b>
<b>*Note: The dates listed under Part C include MA and MA-PD plans. The dates listed under Part D Sponsors also apply to MA and Cost-based plans offering a Part D benefit.</b>				
April 5, 2010	2011 Final Call Letter released.  Announce CY 2011 MA Capitation Rates and MA and Part D Payment Policies. ( <i>applies to Part C and Part D Sponsors only</i> )	✓	✓	✓
April 9, 2010	2011 Plan Creation Module, Plan Benefit Package (PBP), and Bid Pricing Tool (BPT) available on HPMS.	✓	✓	
April 19, 2010	2011 Formulary Submissions due from all sponsors offering Part D (11:59 p.m. EDT).  Transition Attestations due to CMS ( <i>Part D sponsors only</i> )	✓	✓	
May 2010	Final marketing model documents will be available for all organizations. (Models containing significant revisions will be released for public comment prior to this date).		✓	
May 3, 2010	Voluntary Non-Renewal. CMS strongly encourages MA and MA-PDs and cost-based organizations to notify CMS of an intention to non-renew a county or counties for individuals, but continue the county for “800 series” EGWP members, by May 3, 2010.  Additionally, CMS strongly encourages MA and MA-PDs and cost-based organizations that intend to request a new partial county service area to submit that request by May 1, 2010. Requests must include documents for justification that meet the county integrity rule as outlined in Chapter 4 of the Medicare Managed Care Manual.	✓		✓
May 3, 2010	<i>Voluntary non-renewal:</i> Part D Sponsors are strongly encouraged to notify CMS by May 3, 2010 of any type of service area reduction, or conversion to offering employer-only contracts, so that CMS can make the required changes in HPMS to facilitate a sponsor’s ability to correctly upload its bid in June.		✓	

<b>2011 MA, MA-PD, Part D and Cost-Based Plan Calendar</b>				
<b>(All dates, unless identified as statutory, are subject to change)</b>				
<b>2010</b>		<b>*Part C</b>	<b>*Part D Sponsors</b>	<b>Cost</b>
<b>*Note: The dates listed under Part C include MA and MA-PD plans. The dates listed under Part D Sponsors also apply to MA and Cost-based plans offering a Part D benefit.</b>				
May 14, 2010	CMS begins accepting CY 2011 bids via HPMS. <i>(applies to Part C and Part D Sponsors only)</i>  CMS begins accepting CY2011 broker/agent compensation structures.	✓	✓	✓
May 21, 2010	PBP/BPT upload available		✓	
Mid-May/June 2010	CMS sends contract eligibility determinations to applicants based on review of the 2011 applications for new contracts or service area expansions.	✓	✓	✓
Late Spring/Early Summer 2010	Update of the MA/PDP Enrollment, Eligibility, and Disenrollment, Marketing Guidelines.	✓	✓	✓
Tentative date - June 4, 2010	CMS begins accepting CY 2011 marketing material for review.	✓	✓	✓
June 7, 2010	Deadline for submission of CY 2011 bids for all MA, MA-PD, PDP, cost-based plan offering a Part D benefit, "800 series" EGWP and direct contract EGWP applicants and renewing organizations; deadline for cost-based plans wishing to appear in the 2010 Medicare Options Compare to submit PBPs (11:59 p.m. PDT).  Submission deadline for agent/broker compensation structures due to CMS.  Voluntary Non-Renewal. Deadline for MA, MA-PDs and PDPs to submit a contract non-renewal, service area reduction notice to CMS for CY 2011. Deadline also applies to an MAO that intends to terminate a current MA and/or MA-PDs plan benefit package (i.e., Plan 01, Plan 02) for CY 2011.  Medicare cost-based contractors and cost-based sponsors strongly encouraged to submit a non-renewal or service area reduction notice to CMS.	✓	✓	✓

<b>2011 MA, MA-PD, Part D and Cost-Based Plan Calendar</b>				
<b>(All dates, unless identified as statutory, are subject to change)</b>				
<b>2010</b>		<b>*Part C</b>	<b>*Part D Sponsors</b>	<b>Cost</b>
<b>*Note: The dates listed under Part C include MA and MA-PD plans. The dates listed under Part D Sponsors also apply to MA and Cost-based plans offering a Part D benefit.</b>				
June 14, 2010	CMS begins accepting Supplemental Formulary files, Free First Fill file, Partial Gap file, Excluded Drug file, Over the Counter (OTC) drug file, and Home Infusion file through HPMS.  CMS begins accepting CY 2011 Actuarial Certifications in HPMS.	✓	✓	
June 30, 2010	Final date to submit CY 2010 marketing materials for assured CMS' review and approval. NOTE: This date does not apply to CY 2010 file and use materials since these may be filed with the regional office five calendar days prior to their use.	✓	✓	✓
Late June 2010	Non-Renewal. CMS to issue an acknowledgement letter to all MA, MA-PD and Medicare cost-based plans that have notified CMS they are non-renewing or reducing their service area.	✓		✓
Late June or July, 2010	Industry training on Annual Notice of Change (ANOC)/Evidence of Coverage (EOC) and other marketing models.	✓	✓	✓
August, 2010	Non-Renewal. CMS to release a special election period (SEP) letter to plans remaining in the service areas of plans that have non-renewed. Additionally, CMS to post the model final non-renewal notification letter, and State-specific final notification letter.  Release of the 2011 Part D national average monthly bid amount, the Medicare Part D base beneficiary premium, the Part D regional low-income premium subsidy amounts, and the Medicare Advantage regional PPO benchmarks.  Rebate reallocation period begins after release of the above amounts.	✓	✓	✓



<b>2011 MA, MA-PD, Part D and Cost-Based Plan Calendar</b>				
<b>(All dates, unless identified as statutory, are subject to change)</b>				
<b>2010</b>		<b>*Part C</b>	<b>*Part D Sponsors</b>	<b>Cost</b>
<b>*Note: The dates listed under Part C include MA and MA-PD plans. The dates listed under Part D Sponsors also apply to MA and Cost-based plans offering a Part D benefit.</b>				
Early August, 2010	Cost-based plans are encouraged to submit their summary of benefits (SBs) by this date so that materials can be reviewed and approved prior to the publishing of "Medicare Options Compare" and the <i>Medicare &amp; You</i> handbook. SBs must be submitted by this date to be assured of being included.			✓
August 2, 2010	Deadline for CMS to inform currently contracted organizations of CMS' decision not to authorize a renewal of a contract for 2011.	✓	✓	
August 3, 2010	Plans are expected to submit non-model Low Income Subsidy (LIS) riders to the regional office for review.		✓	
August 13, 2010	Dual eligible SNPs that are fully integrated with the State are expected to submit the Annual Notice of Change and Summary of Benefits to the regional office for review.	✓		
Late August, 2010	<b>Non-Renewal:</b> Final date for CMS to approve final beneficiary notification letter of non-renewal.	✓	✓	
Late August/Early September, 2010	CMS completes review and approval of 2011 bid data.  Submit attestations, contracts, and final actuarial certifications.	✓	✓	
September 1, 2010	Last date for contracting MAOs to provide CMS with evidence of contracting with the State in order to operate a Medicaid dual eligible SNP for CY 2011.	✓		
September 1, 2010	Plans are expected to submit model Low Income Subsidy (LIS) riders to the regional office for review.		✓	
September 3, 2010	Initial Submission deadline for risk adjustment data with dates of service from July 1, 2009 through June 30, 2010.	✓		✓
September, 2010	If applicable, plans preview the 2011 <i>Medicare &amp; You</i> plan data in HPMS prior to printing of the CMS publication (not applicable to EGWPs).  CMS will begin accepting plan correction requests upon contract approval.	✓	✓	✓

## **2011 MA, MA-PD, Part D and Cost-Based Plan Calendar**

(All dates, unless identified as statutory, are subject to change)

<b>2010</b>		<b>*Part C</b>	<b>*Part D Sponsors</b>	<b>Cost</b>
<p><b>*Note: The dates listed under Part C include MA and MA-PD plans. The dates listed under Part D Sponsors also apply to MA and Cost-based plans offering a Part D benefit.</b></p>				
October 1, 2010	<p>Plans may begin CY 2011 marketing activities.</p> <p>Once an organization begins marketing CY 2011 plans, the organization must cease marketing CY 2010 plans through mass media or direct mail marketing (except for age-in mailings). Organizations may still provide CY 2010 materials upon request, conduct one-on-one sales appointments and process enrollment applications.</p> <p>Plans are required to include information in CY 2010 marketing and enrollment materials to inform potential enrollees about the possibility of plan (benefit) changes beginning January 1, 2011.</p> <p>Last day for Part D sponsors to request plan benefit package (PBP) plan corrections via HPMS.</p>	✓	✓	✓

## **2011 MA, MA-PD, Part D and Cost-Based Plan Calendar**

(All dates, unless identified as statutory, are subject to change)

<b>2010</b>		<b>*Part C</b>	<b>*Part D Sponsors</b>	<b>Cost</b>
<p><b>*Note: The dates listed under Part C include MA and MA-PD plans. The dates listed under Part D Sponsors also apply to MA and Cost-based plans offering a Part D benefit.</b></p>				
October 1, 2010	<p>MA, MA-PD and Medicare cost-based organizations may not market to beneficiaries of non-renewing plans until after October 1, 2010.</p> <p>Deadline for cost-based, MA, and MA-PD organizations to request a plan correction to the plan benefit package (PBP).</p> <p>Deadline for cost-based, MA and MA-PD organizations to request of a SB hard copy change. Requests for administrative changes may begin on June 14, 2010 and for changes to benefits, in early August 2010.</p> <p>Dual eligible SNPs that are fully integrated with the State that plan to use a non-standardized, non-combined EOC are expected to submit these for regional office review.</p> <p>Non-Renewal. The final beneficiary non-renewal notification letter must be a personalized letter and received by MA, MA-PD enrollees by October 1, 2010.</p> <p>Non-Renewal. Cost-based plans must publish a CMS-approved public notice of non-renewal in one or more newspapers of general circulation covering each community or county in their contract areas.</p>	✓		✓
October 1, 2010	<p>Last date for Medicare cost-based contractors and cost-based sponsors to submit a non-renewal or service area reduction notice to CMS NOTE: We strongly encourage submission by June 7, 2010.</p>			✓

<b>2011 MA, MA-PD, Part D and Cost-Based Plan Calendar</b> (All dates, unless identified as statutory, are subject to change)				
<b>2010</b>		<b>*Part C</b>	<b>*Part D Sponsors</b>	<b>Cost</b>
<b>*Note: The dates listed under Part C include MA and MA-PD plans. The dates listed under Part D Sponsors also apply to MA and Cost-based plans offering a Part D benefit.</b>				
October 8, 2010	Tentative date for 2011 plan benefit data to be displayed on Medicare Options Compare and for 2011 plan drug benefit information to be displayed on the Medicare Prescription Drug Plan Finder on Medicare.gov (not applicable to EGWPs).	✓	✓	✓
Mid-October, 2010	Non-Renewal. CMS to issue an acknowledgement letter to all Medicare cost-based plans that are non-renewing or reducing their service areas.			✓
October 15-29, 2010	CMS mails the 2011 <i>Medicare &amp; You</i> handbook to Medicare beneficiaries.	✓	✓	✓
October 30, 2010	<p>CY 2011 standardized, combined Annual Notice of Change (ANOC)/Evidence of Coverage (EOC) is due to all MA, MA-PD, PDP members, and members of cost-based plans offering Part D. MA and MA-PD organizations must mail the combined ANOC/EOC before this date to ensure receipt by members by October 31. Organizations are not required to mail the Summary of Benefits (SB) to existing members when using the combined, standardized ANOC/EOC; however the SB must be available upon request.</p> <p>Exception: Dual eligible SNPs that are fully integrated with the State are not required to use the standardized, combined ANOC/EOC. Dual eligible SNPs that are fully integrated with the State must mail an Annual Notice of Change and Summary of Benefits before this date to ensure receipt by members by October 31.</p> <p>All plans offering Part D must mail their LIS riders and abridged or comprehensive formularies before this date to ensure receipt by members by October 31.</p>	✓	✓	

<b>2011 MA, MA-PD, Part D and Cost-Based Plan Calendar</b>				
<b>(All dates, unless identified as statutory, are subject to change)</b>				
<b>2010</b>		<b>*Part C</b>	<b>*Part D Sponsors</b>	<b>Cost</b>
<b>*Note: The dates listed under Part C include MA and MA-PD plans. The dates listed under Part D Sponsors also apply to MA and Cost-based plans offering a Part D benefit.</b>				
November 2, 2010	Non-renewal. Enrollees in cost-based plans and PDPs that are non-renewing must receive the final beneficiary non-renewal notification letter.		✓	✓
November 15, 2010	2011 Annual Coordinated Election Period begins. All organizations must hold open enrollment (for EGWPs, see Chapter 2 of the Medicare Managed Care Manual, Section 30.4.4).  Marketing guidelines require that all plans mail a CY 2010 EOC to each new member no later than when they notify the new member of acceptance of enrollment. Organizations offering Part D must mail their Low Income Subsidy Rider (LIS) and abridged or comprehensive formularies with the EOC for new members. New members with an effective date of 1/1/2011 or later do not need to (but may) receive the ANOC portion of the standardized/combined ANOC/EOC.	✓	✓	✓
Mid November 2010	Notices of Intent (NOI) for CY 2012 due for MA, MA-PD, PDP cost-based, “800 series” EGWPs and Direct Contract EGWPs.	✓	✓	✓
Mid November 2010	CMS issues pending HPMS contract numbers for CY 2012 to MA, MA-PD, cost, PDP and EGWP NOIs.	✓	✓	✓
November – December, 2010	Non-Renewal. CMS to issue “close out” information and instructions to MA, MA-PDs, PDPs, and cost-based plans that are non-renewing or reducing service areas.	✓	✓	✓
December 1, 2010	Medicare cost-based plans not offering Part D must send the combined ANOC/EOC for receipt by members by December 1, 2010.			✓
December 1, 2010	Non-Renewal. Cost-based plans must publish notice of non-renewal.			✓
December 31, 2010	2011 Annual Coordinated Election Period ends.	✓	✓	

<b>2011 MA, MA-PD, Part D and Cost-Based Plan Calendar</b>				
<b>(All dates, unless identified as statutory, are subject to change)</b>				
<b>2010</b>		<b>*Part C</b>	<b>*Part D Sponsors</b>	<b>Cost</b>
<b>*Note: The dates listed under Part C include MA and MA-PD plans. The dates listed under Part D Sponsors also apply to MA and Cost-based plans offering a Part D benefit.</b>				
December 31, 2010	Dual eligible SNPs that are fully integrated with the State must mail an Evidence of Coverage, LIS riders and abridged or comprehensive formularies before this date to ensure receipt by members by December 31.  SNPs that were disproportionate percentage SNPs in 2009 must disenroll all non-special needs members who were enrolled prior to 1/1/2010. Chronic care SNPs must disenroll all members of chronic care SNPs who no longer qualify for the special needs requirement after the redesignation of chronic conditions for 2010 and were enrolled prior to 1/1/2010.	✓		
<b>2011</b>				
January 1, 2011	Plan Benefit Period Begins.	✓	✓	✓
January 1 – March 31, 2011	MA open enrollment period (OEP).	✓		
Early January, 2011	Automated CY 2012 applications released.	✓	✓	✓
Early January, 2011	Industry training on CY 2012 applications.	✓	✓	✓
January 31, 2011	Final Submission deadline for risk adjustment data with dates of service January 1, 2009 through December 31, 2009	✓		✓
Late February, 2011	Applications due for CY 2012.	✓	✓	✓
March 4, 2011	Initial Submission deadline for risk adjustment data with dates of service January 1, 2010 through December 31, 2010	✓		✓

**2011 MA, MA-PD, Part D and Cost-Based Plan Calendar**

(All dates, unless identified as statutory, are subject to change)

<b>2010</b>		<b>*Part C</b>	<b>*Part D Sponsors</b>	<b>Cost</b>
<b>*Note: The dates listed under Part C include MA and MA-PD plans. The dates listed under Part D Sponsors also apply to MA and Cost-based plans offering a Part D benefit.</b>				
September 2, 2011	Initial Submission deadline for risk adjustment data with dates of service from July 1, 2010 through June 30, 2011	✓		✓

## **I. Recommended Deadlines for Cost-Based Plan Non-Renewals**

Beginning with the application cycle for 2011 contracts, CMS is strongly encouraging all cost-based plans to follow the schedule established for MA, MA-PD for both submitting service area expansion applications as well as requesting non-renewal/service area reductions. Use of concurrent time frames will allow for a more efficient allocation of CMS resources and consistency across managed care programs.

## **II. Coordination of Benefits (COB) User Fees**

CMS is authorized to impose user fees on Part D sponsors for the transmittal of information necessary for benefit coordination between sponsors and other entities providing prescription drug coverage. CMS may review and update this user fee annually to reflect the costs associated with COB activities. For contract year 2010, the Part D COB user fee was decreased to \$1.89 per enrollee per year. While we continue to work on the de-linking of the enrollment and payment modules in MARx as well as other projects to improve the quality reliability and timeliness of the COB-related data, a review of the incremental on-going costs of COB activities in 2011 indicates the Part D COB user fee can be decreased further to \$1.17 per enrollee per year for contract year 2011. This COB user fee will be collected at a monthly rate of \$0.13 for the first 9 months of the coverage year (for an annual rate of \$0.10 per enrollee per month) for a total user fee of \$1.17 per enrollee per year. Part D sponsors should account for this COB user fee when developing their 2011 bids.

## **III. Specialty Tier Threshold**

For contract year 2011, we will maintain the \$600 threshold for drugs on the specialty tier. Thus, only Part D drugs with negotiated prices that exceed \$600 per month may be placed in the specialty tier, and the specialty tiers will be evaluated and approved in accordance with section 30.2.4 of Chapter 6 of the Medicare Prescription Drug Benefit Manual. In addition to cost calculations, CMS considers claims history in reviewing the placement of drugs on Part D sponsors' specialty tiers. Except for newly approved drugs for which Part D sponsors would have little or no claims data, CMS will approve specialty tiers that only include drugs on specialty tiers when their claims data demonstrates that the majority of fills exceed the specialty tier cost criteria. Part D sponsors should be prepared to provide CMS the applicable claims data during the formulary review process.

## **IV. Medicare Enrollment Assistance Demonstration**

In late 2009, CMS announced that it was considering the implementation of a Medicare Enrollment Assistance Demonstration Project. Under the proposed demonstration, CMS envisioned hiring a contractor to reach out to a targeted group of Medicare beneficiaries with comprehensive information and assistance services to help them in understanding and choosing



among their Medicare coverage options. CMS sought stakeholder input on the development of the project and received input from a diverse group of stakeholders during an Open Door Forum and written comment period.

Stakeholders were generally supportive of enhancing the information available to inform coverage decision-making and exploring efforts to develop more effective outreach to specific beneficiary populations. However, stakeholders did not offer strong support of the Medicare Enrollment Assistance Demonstration Project as a method for developing and testing those strategies. Therefore, CMS is reevaluating its intended approach to the enrollment demonstration project based on the comments we received, and we do not anticipate implementing the project for plan year 2011.

#### **V. Risk Adjustment Data Validation (RADV)**

This is to remind contracting MA organizations of their obligations under 42 CFR 422.504(e)(2). MAOs are required to provide CMS access to facilities and records used in the determination of amounts payable under an MA contract. This obligates MAOs to provide CMS access to facilities and records (including medical records) that are to be used for risk-adjustment data validation (RADV) purposes, since such records are used for the determination of amounts payable under the MA contract. We would also like to stress the importance of including specific language in contracts with providers that reminds them of their obligation to cooperate in the provision of such records, in accordance with 42 CFR 422.310(e).

#### **VI. Release of Part C and Part D Payment Data**

In keeping with the President's January 21<sup>st</sup>, 2009 Memorandum on Transparency and Open Government (74 FR 26277), CMS is considering the routine release of Part C and Part D payment data. These data would be routinely released on an annual basis in the year after the year for which payments were made. The data release would occur after final risk adjustment reconciliation has been completed for the payment year in question and, for Part D, after final payment reconciliation of the various subsidies. For example, we would release data for payment year 2009 in the fall of 2010.

For Part C, we are considering the release of payment data summarized at the plan benefit package level. Specifically, we would release average per member per month (PMPM) payments for A/B benefits and average PMPM rebate payments. Given that CMS already makes Part C enrollment data publicly available, interested parties could readily calculate gross Part C payments to Medicare Advantages Organizations (MAOs) or to the specific plan benefit packages offered by these organizations. In addition, as part of the annual release, CMS is considering the release of the average Part C risk score for each plan benefit package for the payment year in question.

In addition, we are considering releasing aggregated Part C payment data by county. Specifically, we would release average PMPM amounts for A/B benefits and rebate payments at the MA plan type level (i.e., HMO, PPO, etc.) for each county in which such plan types are represented.

For Part D, we are also considering the release of payment data summarized at the plan benefit package level. Specifically, we would release average per member per month (PMPM) payments for the direct subsidy, the low-income cost sharing subsidy, and the Federal reinsurance subsidy. Given that CMS already makes Part D enrollment data publicly available, with this new data interested parties could readily calculate gross Part D payments to Part D sponsors or the specific plan benefit packages offered by these sponsors. In addition, as part of the annual release, CMS is considering the release of the average Part D risk score for each plan benefit package for the payment year in question.

CMS is not proposing to release data that have been provided to CMS by MAOs or Part D sponsors as part of their annual bids. It could be possible, however, to approximate the bid amount for a particular plan benefit package using the payment and risk score information that CMS is considering for release. Given that the data will not be released until a full two years after MAOs or sponsors have submitted such bids, we do not believe release would undermine the competitive aspects of the Part C or Part D program. Further, we do not believe that the availability of payment information of this sort poses a realistic threat to proprietary or confidential information.

We solicit comment on the public release of Part C and Part D payment data as outlined above. In particular, we solicit comment on whether release of payment data at the plan benefit package level would negatively affect the competitive nature of the bidding processes in either Part C or Part D. In addition, we solicit comment on whether the release of the proposed payment data would reveal information that MAOs or Part D sponsors have provided to CMS that is of a proprietary nature.